

TEACHERS' READINESS TO SUPPORT CHILDREN WITH ASPERGER'S SYNDROME WITHIN MAINSTREAM SCHOOLS

by

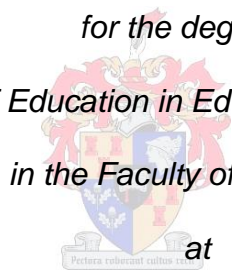
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"There's a special providence in the fall of a sparrow. If it be now, 'tis not to come; if it be not to come, it will be now; if it be not now, yet it will come: the readiness is all."

— William Shakespeare, Hamlet

When the will is ready the feet are light

Proverb

Action springs not from thought, but from a readiness for responsibility

Dietrich Bonhoeffer

DECLARATION

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ABSTRACT

In White Paper 6 (*Special Needs Education: Building an Inclusive Education and Training System*), a framework was provided to establish an inclusive education and training system in South Africa. This development followed trends similar to those in other countries. The inclusive approach emerged as a key international policy at the World Conference on Special Needs Education in Salamanca, in 1994 in Spain. One of the implications of an inclusive education (IE) policy is the provision of appropriate educational opportunities for all learners, including those with disabilities, in the general education class. Therefore school policies that support this educational environment, and that provide administrative assistance, appropriate materials and resources, as well as qualified teachers, are needed.

Literature states that teachers all over the world experience difficulties on different levels of IE. High school teachers, for instance, experience unique challenges and difficulties with the implementation of inclusive principles. Asperger's syndrome (AS), the focus of this study, is one of the disorders directly affected by an inclusive policy. The number of learners diagnosed with autism spectrum disorders (ASD), as well as the number attending mainstream education, has grown worldwide. The characteristics of AS lead to challenges with learning behaviour and socialisation, and cause significant difficulties for classroom teachers, who need to maintain a learning environment that is conducive to learning by all learners. Although there is an increasing flow of information available relating to support, accommodations, methods and information, this does not ensure that educators will be aware of and effectively use these sources. Since teachers are the main team players in the successful implementation of IE, this study aimed to investigate exactly how ready they are to implement IE practices, especially with regard to supporting children diagnosed with AS.

The theoretical framework on which this study was based was Bronfenbrenner's bioecological model. This study's research methodology can be described as basic qualitative research embedded within an interpretive paradigm. Purposive sampling was used to select participants from three different schools in the Western Cape Province in South Africa. Three methods of data collection were employed, namely

reflective questions, as well as semi-structured individual and focus group interviews. Thematic analysis was used to analyse the data.

With Bronfenbrenner's bioecological model as the backdrop, the research findings indicate that the readiness of the participating teachers for IE, and therefore by implication their readiness to include learners with AS in the mainstream classes, is compromised. The findings indicate that this lack of readiness comprises factors on macro-, meso-, exo- and micro-system levels. These systems do not appear to be ready for IE, and therefore, although there is willingness to learn among the teachers in this study, it seems as though they are not ready for the inclusion of learners diagnosed with AS in their classes.

Support needs to be aimed at increasing teachers' understanding of the philosophical principles of IE in general, but also increasing their knowledge of AS and providing them with practical suggestions regarding best practises relating to the inclusion of learners with AS in their mainstream classes. Since teachers seem not to be specialists in the support of learners with barriers to learning, professionals who will be able to support them in this regard need to be employed in the schools.

Key words: Asperger's syndrome, learners with Asperger's syndrome, inclusion of learners with Asperger's syndrome, teachers' readiness

OPSOMMING

In Witskrif 6 (*Spesiale Onderwysbehoefte: Die Vestiging van 'n Inklusiewe Onderwys- en Opleidingstelsel*) is 'n raamwerk verskaf vir die vestiging van 'n inklusiewe onderwys- en opleidingstelsel in Suid-Afrika. Hierdie ontwikkeling het gevolg op soortgelyke tendense in ander lande. Die inklusiewe benadering het na vore getree as 'n sleutel internasionale beleid by die Wêreldkongres oor Spesiale Onderwysbehoefte wat in 1994 in Salamanca, Spanje gehou is. Een van die aspekte wat fundamenteel is tot die beleid van inklusiewe onderwys (IO) is die verskaffing van gepaste opvoedkundige geleentheid aan alle leerders, insluitend dié met gestremdhede, in die algemene klaskamer. Skoolbeleide wat hierdie opvoedkundige omgewing ondersteun, en wat administratiewe bystand, gepaste materiale en hulpbronne, sowel as gekwalifiseerde onderwysers verskaf, word benodig.

Volgens die literatuur ervaar onderwysers die wêreld oor probleme op verskillende vlakke van IO. Hoërskoolonderwysers, byvoorbeeld, ervaar unieke uitdagings en probleme met die implementering van inklusiewe beginsels. Asperger se sindroom (AS), die fokus van hierdie studie, is een van die stoornisse wat direk deur 'n inklusiewe beleid geraak word. Die aantal leerders wat met outismespektrumstoornisse (ASS) gediagnoseer word, sowel as die aantal wat hoofstroomonderrig ontvang, neem wêreldwyd toe. Die kenmerke van AS lei tot uitdagings in leergedrag en sosialisering, en veroorsaak aansienlike probleme vir klasonderwysers, wat 'n leeromgewing moet kan onderhou waarin alle leerders die vermoë het om te leer. Hoewel daar 'n toenemende vloei van inligting is wat verband hou met ondersteuning, tegemoetkomings, metodes en inligting, verseker dit egter nie dat opvoeders bewus sal wees van hierdie bronne nie en hulle doeltreffend sal gebruik nie. Aangesien onderwysers die vernaamste spanlede is in die suksesvolle implementering van IO, was die doelwit van hierdie studie om ondersoek in te stel na presies hoé gereed hulle is om IO-praktyke te implementeer, veral met betrekking tot ondersteuning aan kinders wat met AS gediagnoseer is.

Die teoretiese raamwerk waarop hierdie studie geskoei is, is Bronfenbrenner se bio-ekologiese model. Die navorsingsmetodologie vir hierdie studie kan beskryf word as

basiese kwalitatiewe navorsing ingebed in 'n interpretatiewe paradigma. Doelgerigte steekproefneming is gebruik om deelnemers in drie verskillende skole in die Wes-Kaap provinsie in Suid-Afrika te selekteer. Drie dataversamelingsmetodes is gebruik, naamlik reflektiewe vrae, asook halfgestruktureerde individuele en fokusgroeponderhoude. Tematiese analise is gebruik om die data te analiseer.

Met Bronfenbrenner se bio-ekologiese model as agtergrond kon die navorsingsbevindings wys dat die gereedheid van die deelnemende onderwysers in hierdie studie vir IO, en by implikasie dus hulle gereedheid om leerders met AS in hoofstroomklasse in te sluit, onvoldoende is. Die bevindinge dui aan dat hierdie tekort aan gereedheid faktore op makro-, meso-, ekso- en mikro-sistemiese vlakke omvat. Hierdie stelsels blyk nie gereed vir IO te wees nie en hoewel daar 'n bereidheid is om te leer by die onderwysers in hierdie studie, is hulle nie gereed om leerders wat met AS gediagnoseer is, in hulle klasse in te sluit nie.

Ondersteuning moet daarop gerig wees om die onderwysers se begrip van die filosofiese beginsels onderliggend aan IO in die algemeen te verhoog, sowel as hulle kennis van AS, en om hulle praktiese voorstelle te gee m.b.t. beste praktyk in verband met die insluiting van leerders met AS in hulle hoofstroomklasse. Aangesien dit voorkom asof onderwysers nie spesialiste is in die ondersteuning van leerders met struikelblokke tot leer nie, moet professionele persone wat hulle in hierdie opsig kan help, deur die skole aangestel word.

Sleutelwoorde: Asperger se sindroom, leerders met Asperger se sindroom, insluiting van leerders met Asperger se sindroom, gereedheid van onderwysers

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DEDICATION

This study is dedicated to:

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CHAPTER 1

INTRODUCTION, ORIENTATION AND STATEMENT OF THE PROBLEM

1.1 INTRODUCTION AND BACKGROUND INFORMATION

In October 1996, the National Commission of Special Needs in Education and Training and the National Committee of Education Support Services were appointed to investigate and make recommendations regarding "special needs and support services" in education and training in South Africa. A joint report on the findings of these two bodies was published in 2001 (Department of Education [DoE], 2001). In this document, **The White Paper 6** (*Special Needs Education: Building an Inclusive Education and Training System*), a framework was provided to establish an inclusive education and training system in South Africa. This development followed trends similar to those in other countries. The inclusive approach emerged as a key international policy at the World Conference on Special Needs Education in **Salamanca**, Spain in 1994 (Hick, Kershner & Farrell 2009).

The White Paper 6 (DoE, 2001) highlighted principles that are at the heart of an "**inclusive education**" (IE) system. It basically states that **all** people can learn, despite the fact that all people learn differently and have different learning needs, which are equally important. Differences caused by gender, age, ethnicity, class, disability or HIV status need to be accepted and accommodated. In an IE system, teachers are required to change their attitudes, methodologies as well as education structures. It is clearly stated in the White Paper that the classroom teacher is the primary resource for achieving the goal of IE (Swart & Pettipher, 2011).

One of the aspects that is implied by the inclusive education policy is the provision of appropriate educational opportunities for all learners, including those with **disabilities**, in the general education class. Disabilities refer to conditions that generally have some clearly identifiable basis, such as sensory, neurological and intellectual disabilities (Donald, Lazarus & Lolwana, 2010). The implications of this

are that the learner with a disability will receive his/her entire curriculum in the general education classroom. As a consequence, school policies supporting this educational environment, and providing administrative assistance, appropriate materials and resources, as well as qualified teachers, are needed (Blecker & Boakes, 2010). Burke and Sutherland (2004, p. 164), state that "inclusive teachers don't ask, 'How does this learner have to change in order to be a fourth grader?' Rather they question, 'How do we have to change in order to offer full membership to our learners with disabilities?'"

1.1.1 Asperger's Syndrome and Inclusive Education

Asperger's syndrome (AS), the focus of this study, is one of the disorders directly affected by an inclusive policy. It is one of the disorders that fall under the Pervasive Developmental Disorders (PDD)/Autism Spectrum Disorder (ASD). PDD can be seen as an 'umbrella' term for a section of disorders that contains Autistic Disorder, Rett's Disorder, Childhood Disintegrative Disorder, Pervasive Developmental Disorder Not Otherwise Specified and AS. ASD is frequently used in the literature, and is used to describe three of the Pervasive Developmental Disorders (PDD), namely AS, Autism and Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS). The **number** of learners diagnosed with ASD, as well as the number attending mainstream education, have grown worldwide. An average of one in 110 children in the United States has been diagnosed with an autism spectrum condition. Based on information available to date, the prevalence of AS internationally may be between 2.8 and 4.8 per 1 000. The exact prevalence rates have yet to be determined, but Shtayermman (2007) suggests that it may be as common as one in 250 worldwide (Shtayermman, 2007).

Therefore, if one considers the population of South Africa and our prevailing birth rate, this would mean that a child with autism is being born in our country every hour (Autism South Africa, 2011). Furthermore, according to Autism South Africa (2011), there must be at least 135 000 children with autism in South Africa. According to recent research undertaken by Professor Lorna Jacklin and Autism South Africa (Autism South Africa, 2011) it appears that at most 0.8% of these children are enrolled in general special-needs schools. On further analysis it was established that, as there are only nine autism-specific schools/units in South Africa, which cater for

approximately 650 children, only 0.4% of our children with autism are actually receiving a beneficial education.

According to Jackson (in Autism South Africa, 2011), another alarming outcome of the research indicates that a quarter of the staff at general special-needs schools that have pupils with autism in their classes have never received any form of training on autism. Furthermore, another 30% of the staff teaching these pupils on a daily basis have only ever attended one or two workshops arranged by Autism South Africa (Autism South Africa, 2011). They state that only 350 professional in the whole of South Africa proactively sought specific training on the implementation of well-researched intervention strategies to ensure that the needs of these pupils were being met in their classes (Autism South Africa, 2011).

Myles, Hagen, Holverstott, Hubbard, Adreon and Trautman (2005, p. 5) describe AS as a complex developmental disability that is characterised by challenges in socialisation, communication, cognition and sensation. It is a neurological disorder and it affects a person's ability to communicate and relate to other individuals. These characteristics exist on a continuum, which varies from severe to minor. Each individual's characteristics present unique challenges. What makes it even more difficult is the fact that the characteristics may also vary in the same person on a daily basis (Myles et al., 2005).

It is apparent that educational placement can be problematic for individuals with AS. Humphrey and Lewis (2008) state that learners with an AS cognitive profile, distinct needs and difficulties with imagination, communication and social interaction, as well as their usually high intelligence quotient (IQ) and good linguistic abilities, present with aspects that complicate their inclusion into mainstream education. The experiences of learners diagnosed with AS, and who are educated in mainstream education, are often marked by bullying, anxiety and social isolation (Humphrey & Lewis, 2008). Furthermore, these learners spend the majority of their time in general education with professionals who do not have specialised training for supporting learners with disabilities. On top of this, the typical cognitive profile, as well as the preferred learning style, challenges professional assumptions about teaching and learning, more so than in other groups of learners (Jordan, 2008).

1.1.2 Inclusive Education, Teachers and AS

Inclusive education has been implemented in the last decade, nationally and internationally. Concurrently, several **studies** have been done on the successes as well as the challenges in the implementation of inclusive education (Avramidis, Bayliss & Burden, 2002; Engelbrecht, 2006; Van Reusen, Soho & Barker, 2000). Some studies have focused on the inclusion of learners with various disabilities, and the challenges, perceptions and readiness of teachers to accommodate them in their classes (Avramidis et al., 2002; Bothma, Gravett & Swart, 2000; Forlin & Chambers, 2011; Engelbrecht, Swart, Eloff & Forlin, 2000). Several studies have been done internationally and nationally on the inclusion of learners with ASD, and some have focused on different aspects of AS (Blecker & Boakes, 2012; Hay & Winn, 2005; Humphrey & Lewis, 2008; Jordan, 2008; Ravet, 2011). Studies regarding teachers' **readiness** to include learners with Asperger's Syndrome in South Africa could not be found.

Jordan (2008, p. 12) states that the focus up until now has been on the word "inclusion" itself as the "issue", and has had nothing to do with "mainstream colleagues" as such; therefore, if inclusion failed it was usually the child who was blamed and not the system of "colleagues". Taking into account the absence of literature that deals specifically with "colleagues" or teachers' readiness as such, this study aims to explore the readiness of a sample of teachers in the Western Cape province of South Africa to include and support learners with AS in their classes.

Jordan (2008) argues that teachers need some understanding of ASD, and therefore by implication of AS, in order to address the needs of these learners accurately. She says that "forced integration without understanding or adaptation of the system has been regression to forms of segregation that owe more to isolation of the past rather than the 'cutting edge specialism' that many promote" (Jordan, 2008, p. 15). She stresses the fact that teachers should learn good practise and apply it widely, because we cannot persist with practices that do not meet the needs of the person with special needs, nor the goals for an inclusive society (Jordan, 2008).

The characteristics of AS lead to challenges with learning behaviour and socialisation and cause significant difficulties for classroom teachers, who need to maintain a

learning environment that is conducive to learning by all learners. Myles and Simpson (2002, p. 135) state that the challenges associated with the inability to serve these learners in general education often relate to a lack of understanding of the "perplexing and sometimes seemingly contradictory characteristics of AS". Many of these behaviours can be misinterpreted by uninformed teachers as the individual being defiant. Most of these behaviours are functions of poor coping skills, low frustration levels, as well as difficulty in the reading of social cues (Myles et al., 2005).

Although there is an increasing flow of information available related to support, accommodation, methods and information, this does not ensure that educators will be aware of them and effectively use these sources. Current practices in the mainstream schools, as well as teachers' unwillingness and insufficient training, can lead to poor support and social exclusion of learners with AS (Humphrey & Lewis, 2008). Teachers' negative attitudes and lack of knowledge can have a direct impact on the learning environment, content delivery and quality of learning, not only for the learners with learning disabilities, but also for the other learners in the class (Van Reusen et al., 2000).

1.1.3 Different Opinions Regarding Successful Inclusion of Learners with AS

In the literature there are different views of what is necessary in order to assist learners with AS. Fisher, Frey and Thousand (in Blecker & Boakes, 2010) feel that teachers need skills and knowledge of outcome-based education, multicultural education, multiple intelligence theory, authentic assessment and cooperative learning, instructional techniques such as individual, small and whole group instruction, the adaptation of teaching material, coordination of adult support for learners by paraprofessionals and educational specialists, development of appropriate products such as assessment tools, modification of the curriculum, as well as instruction thereof. Garmon (2005) mentions open-mindedness, self-awareness, reflection and a commitment to social justice as important characteristics teachers need to be able to support AS learners. Open-mindedness is an important characteristic, or even a value, and would refer to being receptive to new information. Self-reflection refers to the ability or preparedness to think critically about one's own teaching and making appropriate changes consistent with one's understanding of

teaching and learning. A strong commitment to social justice implies attempts to achieve equality and equity for all learners.

Such a commitment has been attempted by setting guidelines for the inclusion of learners with AS internationally (Darretxe & Sepúlveda, 2011; Myles et al., 2005), as well as nationally (Sanders, 2003). Despite these efforts, the question still remains whether teachers in South Africa are ready to support learners with AS in an IE setting.

The term 'readiness' will be deconstructed in more detail in Section 1.5, where a conceptual analysis will be attempted. Specific readiness for successful inclusion of learners with AS will also be discussed at that stage. A brief synopsis of AS has already been provided above, and a more detailed discussion of the disorder will be presented in Chapter 2.

1.2 RESEARCH PROBLEM

IE has been mandated by White Paper 6 in South Africa, and has already been implemented all over the world, and to certain extent in South Africa. The literature states that teachers all over the world experience difficulties on different levels of IE. High school teachers experience unique challenges and difficulties with the implementation of inclusive principles (Avramidis, Bayliss & Burden, 2000). Since teachers are the main team players in the successful implementation of IE, it is important to investigate exactly how ready they are to implement IE practices, especially with regard to supporting children diagnosed with AS.

The following primary question will thus guide the research:

How ready are teachers in high schools in the Western Cape in South Africa to support and successfully include children diagnosed with AS?

Secondary questions that may shed light on the primary question are:

- What kind of knowledge do teachers have of AS?
- What kind of knowledge do teachers have of how to support learners with AS in their classes?

- How do teachers experience having children diagnosed with AS in their classes?

In order to accomplish the answering of the research questions, I undertook a literature review of the characteristics of AS, investigating how AS affects an individual, investigating classroom challenges associated with AS, and investigating the best practices for the inclusion of a learner with AS in a general high school setting. I also reviewed literature on the skills, knowledge and "dispositions" that are needed for teachers to practise the inclusion of a learner with AS in a supportive way. I collected data from high school teachers regarding their knowledge of AS, and their knowledge of ways to support learners with AS in their classrooms. I also collected data regarding the teachers' experiences of having children diagnosed with AS in their classes, and their dispositions towards supporting learners with AS in their classrooms.

1.3 METHODOLOGY

1.3.1 Research Paradigm, Design and Methods

The present study utilised a qualitative research methodology, within the interpretivist paradigm. An exploratory and descriptive basic qualitative design was implemented (Babbie & Mouton, 2001; Merriam 2009). The goal of qualitative methodology is the gaining of understanding of a phenomenon, rather than explaining or predicting human behaviour. A further goal of this kind of research is to understand individuals in terms of their own definition of the world (Babbie & Mouton, 2001; Mouton, 2011). By utilising the qualitative approach, an attempt was made to understand a group of high school teachers' readiness to include learners with AS in their classes in mainstream high schools.

1.3.2 Data Collection

Qualitative research design is flexible and emergent, and therefore does not have to be entirely pre-planned. It allows the researcher to adapt and make changes to the study when and where necessarily. To enhance trustworthiness, the use of multiple data collection methods, member checking, a rich literature review and peer reviews were employed. Within the qualitative research design used for this study, the specific methods to collect primary data firstly were open-ended questions that were

answered by the participant teachers in writing. Thereafter, follow-up semi-structured individual interviews and focus groups were conducted according to emerging themes arising from the answers of the participating teachers. In the open-ended semi-structured interviews and focus groups, the researcher employed open-ended questions designed to gather qualitative information. The aim of this was to have a flexible, iterative and continuous interaction with the participant, with a general plan of inquiry. The participants were allowed to do most of the talking (Babbie & Mouton, 2001).

Data analyses commenced right from the start of the process. Information gathered from the participants was analysed and preliminary themes were identified, which were then used as an interview schedule for a focus group discussion. Here the themes identified were checked among the group of participants, and were introduced in order to stimulate group discussions around it.

1.3.3 Participants

The population for this study was high school teachers from the Western Cape. Purposeful sampling was used to choose at least eight participants for the study. The participants were included in the study based on the following criteria: firstly, the data came from teachers who have had experience with a learner with AS or who have had or currently still had a learner with AS in their class. Secondly, the potential participants were selected purposefully on the basis of convenience, in the sense that they were all working within reaching distance of the researcher and of one another. Thirdly, the teachers had to volunteer to take part in the study, after having been informed of the process and what it would demand of them.

1.3.4 Ethical Considerations

Informed consent to approach the teachers was obtained from the principals of the respective schools which had been identified as schools where learners with AS had been and/or were registered. The participants participated freely and voluntarily and were fully informed as to the purpose, methods and intended use of the research, and what their participation in the research would entail. They were guaranteed anonymity - for the purpose of the study, their names were omitted and their privacy

was protected by means of pseudonyms in the final report. The ethical issues were discussed with the participants and written consent was given by each of them.

1.4 DATA ANALYSIS

Data analysis followed the recommendations of Braun and Clarke (2006). The interviews were transcribed into written form in order to conduct the thematic analysis. Briefly, the first stage of the analysis consisted of reading the entire transcribed data set a few times before manual coding began. During this phase, a list was made of ideas and initial codes in the data. Thereafter, the researcher was immersed in the data set in an active way and began to search for meanings and patterns. I used a number system to mark and circle as many as possible different codes, and wrote the corresponding themes in the margins of the transcripts.

The next stage of the analysis focused on a broader level of themes, rather than codes. The different codes were sorted and collated into potential relevant themes. Afterwards, all the collated extracts for each theme were read to make sure that they formed a coherent pattern. Finally, the entire data set was analysed to consider the trustworthiness of the individual themes in relation to the data set. At this stage, the specific themes and subthemes were clearly defined in a thematic map. Names were then assigned to the different themes.

1.5 CONCEPTUAL ANALYSIS

In order to better understand the meaning of the aims and research questions, it is important to clarify what is meant by 'readiness'. Readiness can imply different things to different people. According to the Collins Thesaurus of the English Language (2002), readiness refers to willingness, inclination, eagerness, keenness, preparedness, facility, ease, skill, dexterity, rapidity, quickness, handiness and promptitude. According to the Macquarie Dictionary (S.a.), readiness is the condition of being ready; ready action or movement; promptness; quickness; ease; facility; willingness; inclination; cheerful consent; a readiness to help others.

If one looks at all the above-mentioned definitions of readiness, the meaning of the term as I use it in this study is the following: **readiness** implies an attitude of willingness, as well as having skills and knowledge in advance; and being able to go

over into action without effort. In the case of having to support a learner with AS in a general classroom in a high school, it implies that the teacher will have an attitude of willingness to include the learner with AS in the class, have knowledge of the characteristics of AS and know how to adapt to the unique needs of these learners with ease.

In this study, a teacher is seen as "a school-based educator whose core responsibility is that of a classroom teaching at a school" (Department of Basic Education, 2010, p 79). A **secondary school** refers to a school offering teaching from grade 8 up to grade 12, thus addressing the senior phase, as well as the further education and training (FET) phase of learners' school exposure (Department of Basic Education, 2010). For the purpose of this study, "inclusive education is about recognizing and respecting the differences among all learners and building on their similarities. Further, it is about supporting all learners, educators and the system as a whole so that the full range of learning needs can be met. It involves changing attitudes, behaviour, teaching methodologies, curricula and the environment to meet the needs of all learners" (Department of Education, 2001, p 16).

1.6 POSSIBLE VALUE OF THIS STUDY

The hope is that this study will inform future research on this topic regarding the successful inclusion of learners with AS in general education. It is also hoped that it will shed light on teachers' readiness to include and accommodate learners with AS in the general education classes, as well as point out the knowledge gaps to achieve these ends.

1.7 CHAPTER OUTLINE

This thesis comprises the following five chapters.

Chapter 1 gives an overview of the study. This chapter orientates the reader to the study at hand and places the study in perspective. Chapter 2 will present the paradigmatic foundations, with specific reference to Bronfenbrenner's Bioecological Theory (Bronfenbrenner, 1997, 1994; Bronfenbrenner & Evans, 2000) in its application to development, inclusive education and system change, and this will lead to the phenomenon of teachers' readiness to support learners with AS in mainstream

schools. Chapter 3 presents a literature review on AS and the implications of the inclusion of these learners in general education. Chapter 4 outlines the research design used in this study. Chapter 5 presents a comprehensive record of the study results. Chapter 6 presents the conclusions, recommendations, strengths and limitations of the study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter I shall describe the context of inclusive education, from an international as well as a national perspective. Paradigmatic foundations, with specific reference to Bronfenbrenner's Bioecological Theory (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Evans, 2000) in its application to development, inclusive education and systemic change, will thus lead to a discussion of the phenomenon of teachers' readiness to support learners with AS in mainstream schools. The concept of readiness as elucidated in the literature will be explored, and reviews of previous research efforts in this regard will be reported on.

2.2 FRAMEWORK FOR EDUCATIONAL INTERVENTION

2.2.1 The Context of Inclusive Education

Inclusive education is an issue around the world that has been the topic of many debates. Numerous countries have developed policies and legislation to support educational reform and to implement inclusive education. Internationally and nationally there have been discrepancies in opinion and findings about the interpretation of the concept. Inclusive education has various meanings for people in different times and contexts (Farrell, 2004; Swart, 2004; Vislie, 2003).

Inclusion is a complex, multidimensional and controversial concept. The complexity of the contextual influences in South Africa on education distinguishes the development of inclusive education from that in other countries (Engelbrecht, 2006, p. 253). To understand it one needs to use a comprehensive theoretical and philosophical framework and draw from theories of human development and educational change (Swart & Pettipher, 2011, p.10).

This section is an attempt to outline my theoretical framework for understanding, explaining and implementing inclusion in South Africa, while bearing in mind the effect it has on all the participating role players. This will specifically form the backdrop for the inclusion of learners with AS, as well as the teachers' positioning and 'being ready' for this process. I shall explore international and national developments in inclusion, and then use Bronfenbrenner's bioecological perspective of human development and explain how it relates to inclusion, the effects of inclusion on teachers, and the effects of inclusion on a learner with AS.

2.2.2 Inclusion: An International Perspective

In 1994, representatives of 88 national governments and 25 international organisations concerned with education met in Salamanca, Spain under the auspices of the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 1994) and the Spanish Government. Together, they drew up the **Salamanca Statement** on principles, policy and practice in special needs education, together with an accompanying Draft Framework for Action (UNESCO, 1994). The former opens with a reiteration of the rights in respects of education, which are enshrined in the Universal Declaration of **Human Rights** (United Nations, 1948) and the United Nations Standard Rules on Equalization of Opportunities for Persons with Disabilities (United Nations, 1993). It then proclaims five principles that are held to issue these rights. First of all, every child has the **fundamental right to education**, and must be given the **opportunity to achieve** and maintain an acceptable level of learning. Secondly, it states that every child has **unique** characteristics, interests, abilities and learning needs, and that an education system therefore should be designed, and educational programmes implemented, to take into account the wide diversity of these characteristics and needs. Thirdly, it stresses the fact that those with special education needs must have access to **regular schools**, which should accommodate them with a child-centred pedagogy capable of meeting their needs. And lastly, it emphasises the fact that **regular schools** with an inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society, and achieving education for all; moreover, they provide an effective education for the majority of children, and improve the

efficiency and, ultimately, the cost-effectiveness of the entire education system (UNESCO, 1994).

In 2000, participating countries assembled again in Dakar, Senegal, and it was concluded that the goals for quality education for all (EFA) had not been reached (UNESCO, 2000). Six EFA goals, which are global in nature, were set by the Dakar 2000 Framework for Action with the specific goal of enabling "all individuals to realise their right to learn and to fulfil their responsibility of contributing to the development of society" (UNESCO, 2000, p15). The expectations were set that individual countries needed to set their own goals, intermediate targets and time lines with regard to their existing as well as new education plans (UNESCO, 2000).

2.2.3 Inclusion in South Africa

After the first democratic elections in South Africa in 1994, the newly elected government strived towards developing a country that provided equal opportunity for all. The Bill of Human Rights (in the Constitution of 1996; RSA, 1996) acknowledges education as a basic human right for every citizen of South Africa, and also the right to education by all learners, regardless of their needs and differences (Engelbrecht, 2006; RSA, 1996; Swart, 2007). These principles were embodied by the South African School Act of 1996 (Department of Education, 1996), which states that no learner should be denied admission to school, based on group, disability or language.

In October 1996, the Minister of Education appointed the National Commission on Special Needs in Education and Training (NCSNET) and the National Committee on Education Support Services (NCESS) to investigate all aspects of 'special needs and support services' in education and training in South Africa, and then to make recommendations. After the joint findings were presented to the Minister of Education, they were presented in February 1998 for public comment and advice (Department of Education, 1997). This report stresses the need for a paradigm shift from a focus on 'learners with disabilities' to 'learners with barriers to learning' (Engelbrecht, 2006).

The findings of the investigation highlighted the past inequities and injustices of the former education system. The main findings included the following: special education

and support had been provided for only a small percentage of learners in special schools and special classes; the support was given on a racial basis, mostly to whites; most of the learners with special needs fell outside the system or has been in the mainstream because of policy; the education system as well as the curriculum did not respond to the diverse needs of learners, and therefore it led to huge numbers of dropouts, push-outs and failures; some attention was given to 'special needs and support', but other aspects of education were seriously neglected (Lomofsky & Lazarus, 2001; Swart & Pettipher, 2011).

Based on this report it was recommended that education and training for all should be promoted and that inclusive and supportive centres of learning should be developed. All learners should therefore participate actively in the education process and will then be able to develop to their potential and take part as equal members of society.

The following broad strategies were proposed: development of an integrated system of education; infusion of 'special needs' and 'support services' throughout the system; creating of 'barrier-free' and supportive psychosocial learning environments in all education institutions; promotion of the right and responsibilities of all role players in education; promotion of intersectoral collaboration; development of community-based support; development of a preventative and developmental support approach; development of a funding strategy to endure readdress for the historically disadvantaged; and transformation of all aspects of the education system to be inclusive (Department of Education, 1997, p. 1).

The report of the NCSNET and NCESS, 'Quality education for all - Overcoming barriers to learning and development', was released in 1997 (Department of Education, 1997). In this report the term 'learners with special educational needs' was deemed to be problematic, and the preferred phrase, 'barriers to learning and development', was introduced to describe the obstacles to teaching and learning that can be experienced (Engelbrecht, 2006; Swart, 2004).

2.2.4 Proposed IE Model for the Implementation of IE in South Africa

The abovementioned report formed the framework for the National White Paper 6 on Special Needs Education, entitled "Building an Inclusive Education and Training System", what was published in 2001 (Department of Education, 2001).

Education White Paper 6 (Department of Education, 2001) was the sign that there had been a shift or turning point in the thinking within South Africa. Daniels (2010, p. 635) calls it a shift from a "within-learner or deficit special needs" model to a greater focus on "barriers to learning and development", a system change or social rights model. Engelbrecht states this has not been "one more option for education", but one that will hopefully be an "education strategy most likely to contribute to a democratic and just society" (Engelbrecht, 2006, p. 254).

The White Paper 6 (Department of Education, 2001) acknowledges the fact that every learner can learn and that all children and youth need support. It also acknowledges and respects differences in learners, despite their different characteristics and learning needs. No one will be excluded because of HIV status, other infectious diseases, age, class, gender, ethnicity, ethos, language or disability. The White Paper acknowledges that inclusive education and training enable education structures, systems and learning methodologies to meet the need of all learners. Every learner, as well as the educators and system as a whole, needs support. In a broader context than schooling it acknowledges that learning also occurs in the home and community, and within formal and informal settings and structures. To meet the learning needs of all learners there needs to be a change in attitudes, teaching methods, curricula as well as the environment. The participation of all learners needs to be maximised in the culture of educational institutions, and barriers to learning should be uncovered and minimised. Learners can be empowered by developing their strengths and enabling them to participate in the learning process (Department of Education, 2001; Swart, 2004).

Daniels (2010) highlights the fact that the principles of this policy are framed by the Constitution of South Africa, namely human rights and social justice, maximum participation and social integration, equal access for all to a single inclusive education system, access to the curriculum, equity and redress of past inequities,

sensitivity to and involvement of the community, and cost effectiveness of the services provided.

Donald et al. (2010, p. 16) state that, although laws, policies and structures facilitate the education process, more is needed: "Transformation of the process of education requires individual people to examine and modify their values and practices." In addition, they add that the teachers need to take ownership for inclusion by promoting and applying the principles it stands for. The question asked is whether the teacher in South Africa is ready for this change.

2.3 READINESS FOR INCLUSIVE EDUCATION

Teachers are some of the most important team players in the inclusive education system. They are the ones who have to implement the proposed changes. Inclusion is a commitment to a change in philosophy, practice and attitudes by teachers. Their **readiness**, attitude and understanding of this matter will affect not only the learners in their classes, but also the atmosphere in the school, the attitude of parents and eventually the whole system as it permeates through the system. But, at the same time, readiness also refers to the available resources, professional support and the training of staff, which is core to the successful implementation of inclusive education.

Readiness can imply different things to different people. According to the Collins Thesaurus of the English Language (2002), readiness refers to willingness, inclination, eagerness, keenness, preparedness, facility, ease, skill, dexterity, rapidity, quickness, handiness and promptitude. According to the Macquarie Dictionary (S.a.), readiness is the condition of being ready; ready for action or movement; promptness; quickness; ease; facility; willingness; inclination; cheerful consent; a readiness to help others.

If one looks at all the above mentioned definitions of readiness, the meaning of the term as I use it in this study is the following: **readiness** implies an attitude of **willingness** as well as having **skills and knowledge in advance**; and being able to go over into **action** without effort. In the case of having to support a learner with AS in a general classroom in a high school, it implies that the teacher will have an

attitude of willingness to include the learner with AS in the class, have knowledge of the characteristics of AS and know how to adapt their practices to the unique needs of these learners with ease.

Different opinions exist about what is needed, therefore by implication the aspects needed by teachers to be ready, to practice inclusive education the way it was meant to be. Swart (2004, p. 239) states that to successfully implement inclusive education requires "fundamental changes in the way people **feel, think, and act** at school ... these changes have their sources in the **hearts and minds of** people"; therefore change starts with the teachers' **attitude** in the classroom.

Equally important, Blecker and Boakes (2010) argue that, because of the inclusion of diverse learners in general education, school **policies, support from the school administration, material and resources**, as well as **qualified** teachers, are needed. Blecker and Boakes (2010) continue by stressing the importance of **specific skills, knowledge and dispositions**, and they define the term 'disposition' "as the propensity of an individual to behave in a certain manner based on a specific belief system" (Blecker & Boakes, 2101, p. 436). Garmon (2005) stresses that dispositions that are important to make inclusive education successful are **open-mindedness, self-awareness, reflection** as well as a **commitment to social justice**. Corbett (2001) deems the following qualities in educators important for successful inclusion: **respect, empathetic listening, compassion, recognising individual differences, fairness, understanding, positive thinking, sense of humour, seeking help, flexibility and open communication**.

In the South African context, the risk factors, as well as the experienced barriers to learning, are at times overwhelming. The issues that teachers have to deal with are unique and multiple: poverty, school dropouts, HIV/AIDS, language challenges, FASD, substance abuse and violence. Educators are part of this context and the onus is on them to implement the much needed change. It has been clearly highlighted that change needs also to happen within teachers. They are part not only of a national paradigm change, but a global change.

The Department of Education (2005, p. 4) states in the Guidelines to Inclusive Education that the "Convention places an obligation on Government to ensure that

persons with disabilities are not excluded from general education ..." further pointing to the importance of the role of the government, on a macro-level, in inclusive education.

2.4 READINESS FOR IE: RESEARCH

Internationally and in South Africa, studies have been done to evaluate the perceptions and attitudes of teachers towards inclusive education. In many cases it was found that the teachers feel overwhelmed, ill-equipped, have a "sense of fear", are frustrated and even angry (Abbott, 2006; Avramidis et al., 2002; Bothma, Gravett & Swart, 2000; Forlin & Chambers, 2001; Horne & Timmons, 2009).

Even though legislation presents a major step forward in transforming the South African education system towards democratic policies and human rights principles, the question has been asked whether teachers are ready to implement these inclusive education ideas. Hay, Smit and Paulsen (2001) refer to the implementation of Curriculum 2005, and ask whether it had been implemented too hastily, without adequate teacher training. Similar questions can be asked about the implementation of inclusive education in South Africa.

In a comprehensive study done by Hay et al. (2001) regarding the knowledge, skills and attitudes of teachers towards inclusive education, it appeared that teachers still think in terms of special education models used in previous eras, and therefore do not make the paradigm shift needed to implement inclusive practices effectively. The findings suggest that, **although most teachers are willing** to learn more about inclusive education, huge effort will have to be made to move teachers towards the explained **paradigmatic shifts** necessary for the successful inclusion of learners. Engelbrecht (2006) came to the conclusion that, ten years after the publication of the Salamanca Statement (UNESCO, 1994), the implementation of inclusive education, as well as the establishment of a democratic government in South Africa, **remain challenging** issues. Wildeman and Nomdo (2007) found that the implementation of inclusive education policies in South Africa showed **little evidence of well-directed information sharing** with educational staff, as well of **advocacy towards the paradigm shift** needed. In addition, they found that there was no consensus on the **scope of implementation and on the type of interventions needed** to address

barriers to learning. On top of this, some participants in the study **did not understand the shift** in orientation required by Education White Paper 6 (Department of Education, 2001).

As indicated by the literature, the process of including learners with AS is a complex matter, because of their 'distinct needs'. Jordan (2008) states that unsuccessful inclusive practises in mainstream education can lead to further social exclusion of learner with AS. Therefore, the aim of the current study was to investigate teachers' readiness for the inclusion of students with AS in South Africa.

To fully understand the implications of inclusive education, one also has to look at paradigm shifts in educational support, as well as historic, social, political and educational processes, both internationally and nationally.

2.5 PARADIGMATIC FOUNDATIONS

The Salamanca Statement on Principles, Policy and Practice in Special Needs Education, together with its accompanying Draft Framework for Action (UNESCO, 1994), marks the beginning of a paradigm shift in the world regarding inclusive education.

Schools are directly affected by changes that take place in the world economics, politics and social context. As world views change, new paradigms parallel to these changes are formed, which affect education as a whole. According to the electronic Encarta World English Dictionary (1999), "a paradigm is a generally accepted model of how ideas relate to one another, forming a conceptual framework within which scientific research is carried out", and a paradigm shift therefore is a radical change in somebody's basic assumptions about or approach to something. Paradigms can be enabling, but also limiting, if they still inform behaviour despite the fact that new theories and knowledge have been developed (Swart, 2004).

2.5.1 Paradigmatic Change: Medical Model to Bioecological Approach

Two very prominent paradigms related to disability and educational support need to be described. This will enhance an understanding of the perceptions and practices regarding inclusive education today, and the shift that has taken place in the last two

decades since the drafting of the Salamanca Statement on Principles, Policy and Practice in Special Needs Education was drafted (UNESCO, 1994). The two paradigms are 'the medical deficit model' and 'the social ecological model'. The medical deficit model can be presented in the following visual way:

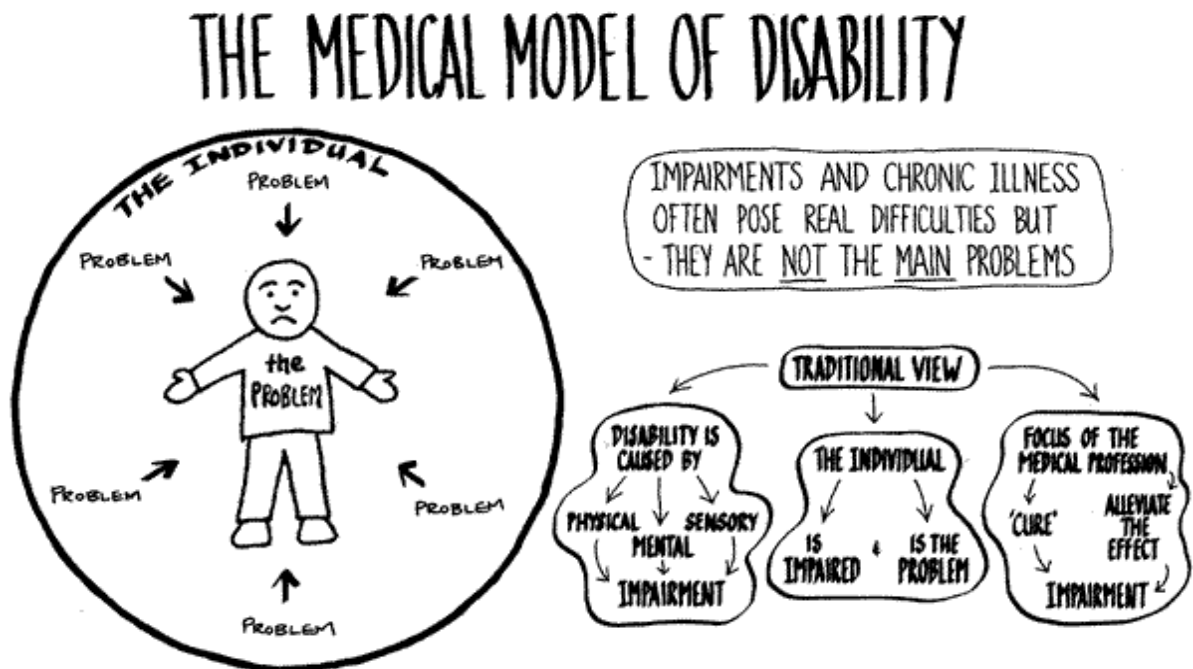


Figure 1: The medical model of disability (Democratic Disability and Society Group, 2003a)

The medical model (Figure 1) has been used by professionals as their framework for explaining their findings regarding clients or patients, but the model also has directed their conversations, methods and practices. Although there has been a paradigm shift away from the medical model, it is still used widely in education today (Mitchell, 2005).

The medical model focuses on 'what is wrong' with the person, and the fact that we need to 'fix that'. There is a belief that some learners are disadvantaged and therefore are deficient and beyond support. Such an a-contextual and individualistic approach ignores systemic factors and the influences of broader social-economic factors (Engelbrecht, 2006). Furthermore, in social sciences the risk factors and barriers are not only within the person, but can also emanate from the community the person is in. Until recently, assessments formed a central part of the decision making for the placement of learners with physical and learning difficulties. In Canada and

the USA, for example, assessments have informed the central part of the funding for learners with learning disabilities. If it could not be proven that a specific label could be attached to a learner, no funding was provided for that specific learner.

In South Africa, learners were labelled to decide in which 'special school' they should be placed, to best provide for their specific needs where they could be 'fixed'. The reasoning behind the 'special placement' was that it is best for the child with the 'handicap', 'deficiency' or 'diagnosis', and that their 'prognosis' would be better if they were 'segregated' (Swart & Pettipher, 2011, p. 6).

The medical model paradigm also affected the roles and actions of educators and professionals. 'Special education teachers' were trained specifically with special skills to be able to teach within those specialised settings. They were considered as the knowledgeable ones and only ones who know how to assess, diagnose and assist the learner in treating the disability. The perception was that a 'cure' was not possible without the expert intervention of the professional (Swart & Pettipher, 2011, p. 5).

The internal and intrinsic factors of an individual cannot be ignored. The focus should change; the disability and how it can be fixed or how it disables the individual should not be the focus. The focus should be on how the system can accommodate this individual's specific needs. An example could be the adaptations needed to accommodate the learning needs of a learner diagnosed with AS, not only in the community, but also in the school, in the planning of the classroom setup, as well as in the specific teaching methods used.

Criticism of the medical deficit model has led to social and ecological theoretical models (Swart & Pettipher, 2011). It was important that a shift had to take place. It became apparent that the whole of society had to take responsibility for its members' needs. "Normalization" became the ideal to strive for, which means that individuals with "handicaps" have the right to a "normal" daily routine, which involves "normal schools and home circumstances", "normal" jobs, "normal" respect from others, "normal" economic and environmental standards (Swart & Pettipher, 2011, p. 7).

The social ecological model can be presented in the following visual way (Figure 2):

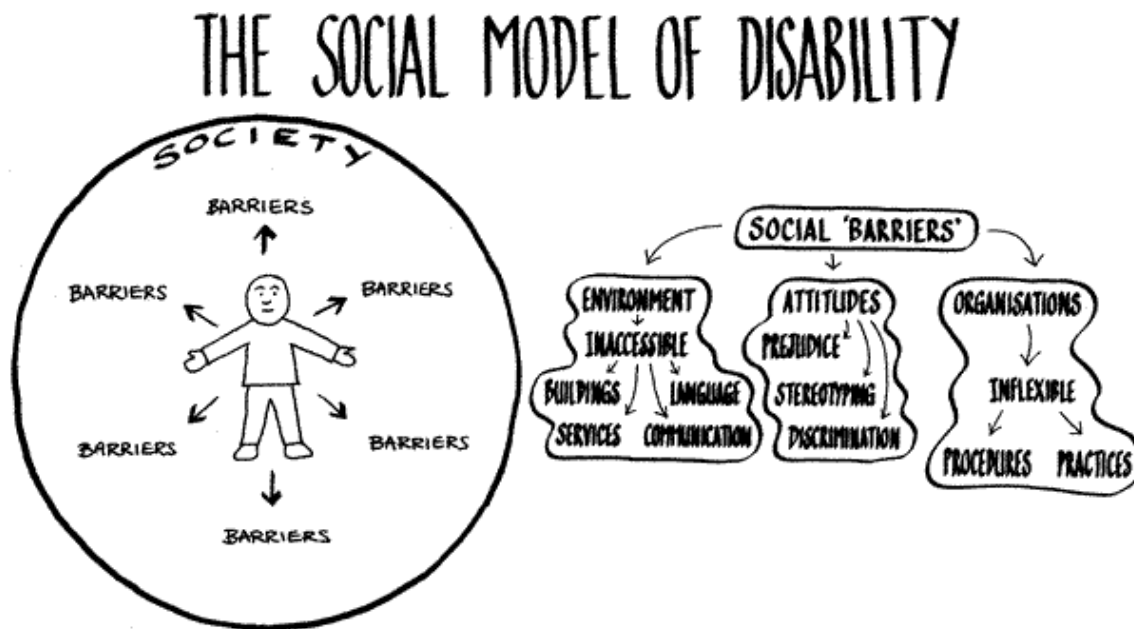


Figure 2: The social model of disability (Democratic Disability and Society Group, 2003b)

Wildeman and Nomdo (2007) state that all education programmes need to confront 'disability' in all its senses: medical, social and economic. Also, by expanding the definition beyond the medical model, inclusive education "assumes the mantle of a meta-discourse. It is no longer the sole preoccupation of special needs education directories, but is diffused into the entire national and provincial education system (Wildeman & Norman, 2007, p. 1). The implication of this would be that, if there are challenges within the education system in general, they will not only affect the implementation of inclusive policies, but also the teacher's readiness directly.

This normalisation principle was in direct conflict with the idea of separate special schools, and was the force behind mainstreaming and integration, the two important education systems at that time. It is important to understand, however, that both mainstreaming and integration, sometimes used interchangeably, facilitated the shift towards inclusion. It is also important to note that there is no consensus about the exact definition of each term. Nevertheless, I will try to clarify the meaning of these principles, since it is important for an understanding of the term inclusion, as well as an understanding of the change in paradigmatic thinking that is required.

The principle underlying the term **mainstreaming** states that a person with a disability has the right to life experiences, the same or similar to anyone else who is 'normal'. The ultimate goal with mainstreaming is that the person with the disability should return to mainstream education as soon as 'they are ready' to 'fit in', can 'earn their place back' and can 'keep up' with regular classes and schools (Swart & Pettipher, 2011, p. 7). This model still assumes intrinsic deficits, and the child should be ready to fit into a specific school environment.

Integration, on the other hand, is based on political and social discourse. Policies of integration are driven by humanitarian and civil rights. This approach states that it is the democratic right of all learners to be integrated into school. A learner with a learning disability has the right to equal membership within a community. The goal is ultimately to maximise social interaction between the disabled and the non-disabled society. An example of this is the "No Child Left Behind Act" (US Department of Education, 2001) in the USA. Problems arising from this Act were that it contained no specifications, and therefore was interpreted in various ways (Dyson & Lolwana, 2001).

According to Swart and Pettipher (2011), the goal of integration is the assignment of equal membership of the community to learners with disability. The aim is to maximise social interaction between the 'disabled' and the 'non-disabled'. In comparison to mainstreaming, integration entailed significantly more participation by learners, but a significant amount of instruction time still took place in separate settings (Frederickson & Cline, 2002). Therefore, in essence integration seems to be a more holistic and extensive approach than mainstreaming, although in reality the learners with the learning disabilities are still separated into different classes for instructional time.

There is no specific definition or agreement on exactly what inclusive education is. In general it is based on the definition that all **learners are different** in distinct ways, and not only in relation to disability. In order to meet their needs, it requires **change** and **adaption of practices used up until now** (Kinsella & Senior, 2008).

According to the agenda adopted by the World Conference on Special Needs Education in Salamanca (UNESCO, 1994), the fundamental principle of an inclusive

school is that all children should learn together, regardless of the differences and difficulties of the learners. Approaching learners' difficulties according to the social model of disability, schools must recognise the fact that learners have diverse needs, and they should be accommodated according to those needs. Schools should accommodate the learners' learning styles and learning rates. Quality education should be ensured by using an appropriate curriculum, as well as appropriate teaching strategies and resources. Necessarily organisational arrangements should be made if needed. The agenda also stated that there should be a continuum of support and services to match the continuum of special learners' needs in every school (UNESCO, 1994).

Swart and Pettipher (2011, p. 8) describe the agenda as "a **reconceptualisation of values and beliefs** that welcomes and celebrates diversity, and not only a set of practices". UNESCO (2009, p. 13) defines inclusion as "a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures, communities, and reducing exclusion within and from education. It involves change and modification in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and conviction that it is the responsibility of the regular system to educate all children". Furthermore, UNESCO views inclusion as "a dynamic approach of responding positively to pupil diversity and of seeing individual differences not as a problem, but as opportunities for enriching learning" (UNESCO, 2005 p. 12) The definition of inclusive education in White Paper 6 has been discussed in Section 2.2.4, but at this time it is important to specifically highlight the following aspect pertaining to teachers in particular: "Changing attitudes, behaviours, teaching methods, curricula and environment to meet the needs of all learners" (Department of Education, 2001, p. 7).

Looking at all of the abovementioned definitions and perceptions of inclusion, it is apparent that inclusion is an on-going process in which change and transformation are needed not only within the individual participants, but also in the education system, communities and society as a whole. Wildeman and Nomdo (2007) state that all education programmes need to confront 'disability' in all senses: medical, social and economic. Also, by expanding the definition beyond the medical model, inclusive education "assumes the mantle of a meta-discourse. It is no longer the sole

preoccupation of special needs education directories, but is diffused into the entire national and provincial education system (Wildeman & Nomdo, 2007, p. 1).

2.5.2 Change Within Systems

The question we need to ask is **what is change**, and how does it happen? Peirson et al. (2011) name the many synonyms of change, namely transform, convert, shift, modify, adjust, alter, adapt and amend. All of these words assume action and movement from "one state of being to another" (p. 308). Therefore the implication is that an entity becomes something other than it was.

The next question we need to answer is **what is system change**? Peirson et al. (2011) distinguish first-order change, which refers to the natural progression as a system as it adapts to minor and predictable challenges, and second-order change, which "targets the status quo to transform or reframe fundamental system dynamics, structures, resources, rules, norms, and relationships" (p. 308). The change from an exclusive education system to an inclusive education system would be an example of the latter.

"... the crux of change involves the **development of meaning in relation to a new idea**, programme, reform or set of activities. But, it is individuals who have to develop new meaning, and these individuals are ... part of a gigantic ... social system that contains myriad different subject worlds" (Fullan, 1992, in Donald et al. 2010, p. 16). The implication of this statement stresses the huge challenge it is to change or transform our education system in South Africa. Change is needed not only for every individual, who has his/her own "subjective world", but for the whole of society (Donald et al., 2010, p. 16).

Donald et al. (2010, pp. 17-19) highlight the following important dimensions in the process of change within education towards an inclusive education system. They argue that change needs to start with every **individual** involved in education. First of all, they stress the fact that we are a society and therefore parent/caregivers, community members, all educators and learners are included. Everybody need to take ownership for inclusion, not only on a micro-system level, but also on a macro-system level, by promoting strong school–community links. Circular causality will take effect if each of us starts to change our thinking and ownership (Donald et al., 2010).

Secondly, they argue that we need to **accommodate all learners** whatever their background, ability or circumstances. There has to be flexibility in the curriculum in relation to the needs of the learner with barriers to learning, and adaptations have to be made for individual learners regarding ability, pace and learning style.

Lastly, it is important to consider the fact that **content** needs to be relevant to society as a whole, as well as to the individual. In the past, content was foreign to certain people and cultures, and therefore excluded instead of included individuals. Teachers need to find creative ways to use the diversity in learners and apply it in a relevant way that will make sense to them.

Donald et al. (2010) emphasise that inclusion relies on **respect for diversity** at all levels of education. This means respect between teachers and learners, learners and learners, teachers and authority figures, and school and the community. Teachers need to model this respect not only to teachers, but also to learners. In a report, the Department of Education (2008, p. 8) states that "awareness raising activities and programs are developed to build respect among all role players" in the inclusive school.

Swart and Pettipher (2011, pp. 22-23) discussed a few elements of educational change, and they state explicitly that these changes do not occur in isolation, but are in constant interaction. These elements are discussed below.

Vision and leadership: In the literature it is apparent that the leadership within the inclusive school is one of the most important factors for the success of a programme. The principal of a school has a responsibility in setting the tone of acceptance and care. If the principal does not believe in the philosophy and principles of inclusion, he will affect not only the attitudes of the teachers, but will permeate through to the learners and to the perception of the society the school is in about inclusion.

Whole-school development: This approach strives to create an inclusive culture and practices that "permeate every aspect of the school and all its activities" (Swart & Pettipher, 2011, p. 19). It is based on ideas from system theory and organisational development. The ideal is collaboration between all role players and systems in the school, and the development of the whole school community, as well as organisational development.

Support and collaboration: Collaboration between all the systems and subsystems within the school, as well as the outside agencies involved with the learners, is very important. If a school does not have that culture of collaboration, and is not an open system, it will eventually affect the learners. All have to work towards a mutual goal, and share the responsibilities, resources as well as accountabilities.

Attitudes: Inclusion is a paradigm shift, which means that there needs to be a change in thinking and attitudes. The thinking of each person in a school system needs to change in an inclusive system. Negative thinking can be corrosive to the efforts of inclusive education. It could become a barrier to learning and the process as a whole.

Resources: This implies the use of old resources in different ways and the adding of new resources, not only in the schools, but also in the community.

Professional development: For educators to be ready for the task at hand, pre-service and in-service, as well as on-the job, training is very important, among others to enhance their instructional and technical skills. Educators need to understand the inclusive education language, the meaning of collaboration and their roles and responsibilities within the system.

In order to understand and facilitate the above-mentioned changes towards an IE system, it might be useful to consider Bioecological Theory as devised by Bronfenbrenner (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Evans, 2000).

Peirson et al. (2011), emphasise the fact that one needs to use theory or well-developed conceptual models for advanced system thinking and systemic change. Therefore, because it is a challenge to understand the complexity of the influences, interactions and interrelationships between the teachers and individual learners and the multiple other systems that are connected, as well as explaining the effect of changes towards an inclusive education system, it is important to use a theory that will be able to describe the process of change.

Swart (2004) states that the document, 'Quality education for all: overcoming barriers to learning and development' (Department of Education, 1997), recommended that a

system change approach should be followed in the implementation of these intricate processes.

Bronfenbrenner (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Evans, 2000) postulated such a model that is multidimensional in nature. The model evolved from a blend of ecological and systems theories, and can be used to explain development and the complex, causal processes involved in change. The model postulates that there are different layers or levels of interacting systems that result in change, growth and development (Swart & Pettipher, 2011 p. 10). Everyone is affected by change, whether paradigmatic or more practical; it permeates through all the different layers of society with a ripple effect. Inclusive education implies such a change, and demands a change in thinking, understanding and practising in education.

The significance of the bioecological model for this study lies in the fact that it could also be used as a tool to explain the dynamics and magnitude of the implementation of inclusive education principles. The postulation of Bronfenbrenner's bioecological model is thus part of the paradigm shift that has been taking place in social science in the last few decades. Bronfenbrenner and Evans (2000) mentioned that the first attempt to formulate a definition of developmental science as we know it today was postulated by three authors, Cairns, Elder and Castello, in 1996. They referred to developmental science as a "fresh synthesis that has been generated to guide research in the social, psychological, and behavioural disciplines" (Bronfenbrenner & Evans, 2000, p. 116). It is a way of linking concepts and findings, as well as different developmental ideas. It describes the dynamic interplay of these processes across "time frames, levels of analysis, and contexts".

Bronfenbrenner has hypothesised a series of nested systems, each inside the other, similar to a set of Russian dolls. At the innermost level is the immediate setting, in which the developing person is situated. He refers to these systems as the social context and environment of development. These nested structures are also referred to as ecological levels and environmental systems. This structure includes the micro-, meso-, exo- and macrosystem. They all interact with the chronosystem (time dimension) (Swart & Pettipher, 2011). Within this theoretical structure there is interconnectedness both within and between settings (Bronfenbrenner, 1979, 1994;

Bronfenbrenner & Evans, 2000). Changes or conflict in one layer will have a ripple effect, affecting all the other systems.

The **macrosystem** can be seen as the outermost layer in the environment within which the child develops. While not being in the specific framework, this layer comprises the cultural values, customs and laws (Berk, 2000). According to Bronfenbrenner (1994, p. 40) it also includes the "bodies of knowledge, material resources, customs, life styles, opportunity structures, hazards, and life course options that are embedded in each of this broader systems". The effects of larger principles defined by the macrosystem have a cascading influence throughout the interactions of all the other layers. Examples of this would be the Bill of Human Rights (RSA, 1996) and the White Paper 6 on education and training (Department of Education, 2001). The macrosystem is specific to a time and culture of the given time.

An example of cultural values that affect the system is that should it be an assumption in the culture that teachers are solely responsible for educating learners, that culture is less likely to promote and provide outside resources to help teachers. This, in turn, affects the structures in which the teachers function. The parent's ability or inability to carry out responsibilities toward the child within the context of the child microsystem likewise is affected (Donald et al., 2010; Swart & Pettipher, 2011).

The **exosystem** defines the larger social system, in which the child or teacher in this study does not function directly. The structures in this layer have an impact on individual development by interacting with some structure in his or her microsystem (Berk, 2000). This includes other systems in which the individual is not directly involved, but which influence those who have proximal relationships with him or her in the microsystem. Parent workplace schedules or community-based family resources are examples. The child may not be involved directly at this level, but he does feel the positive or negative force involved with the interaction with his own system. Poor education systems, for a teacher who needs to implement IE principles or a child who experiences barriers to learning, can have an indirect influence on the individual's functioning as a person. On the other hand, an inclusive education policy can have a direct positive effect on the life of a learner with AS, because of the build-

in support programming available to assist him (Bronfenbrenner, 1994; Donald et al., 2010; Swart & Pettipher, 2011).

The **mesosystem** provides the connection between the structures of the individual's microsystems (Berk, 2000). It is a system consisting of the interactions between the different microsystems, and refers to the linkages and processes that exist between two or more of these systems/settings at a given moment in the individual's life (e.g. the relationship between home and school). One microsystemic relationship may affect other relationships, positively or negatively (Donald et al., 2010; Swart & Pettipher, 2011). In the context of inclusive education, child-teacher relationships might affect, for instance, the child's performance negatively at school should he or she be misunderstood by the teacher because of a disability or disorder. The positive social relationships and teachers' perceptions within the inclusive classroom can have a direct impact on the child's world view, as well as self-esteem. Bronfenbrenner refers to a study done by Epstein (in Bronfenbrenner, 1994) on the developmental impact of two-way communication and participation in decision making by parents and educators. High, joint involvement led to greater initiative and independence in learners, as well as higher grades. The conclusion was that effects of family and school processes had a greater developmental impact on development than attributes like socioeconomic status and race (Bronfenbrenner, 1994).

The **microsystem** is the system in which the individual is closely involved in proximal interaction with familiar people, thus the relationship and interactions the individual has with his or her immediate environment. It contains the structures with which the individual has face-to-face contact with particular physical, social and symbolic features. Examples of these are settings such as family, school, neighbourhood and peer group. It is here, in this physical and psychological environment that changes over time, where the proximal processes (discussed in the next section) take place (Bronfenbrenner, 1994). Bronfenbrenner (1994) states that the power to sustain development depends on the content and structure of the microsystem. Furthermore, relationships have impact in two directions. Teachers, for example, influence the behaviour and beliefs of the child; but the child also affects the behaviour and beliefs of the teachers. This phenomenon is referred to as bi-directional influences and it occurs on all levels of the environments. At the microsystem level, however, bi-

directional influences are the strongest and have the biggest impact on the individual (Berk, 2000).

Within the microsystem, the significant other, which would be an educator in the classroom, has to be recognised, be present, participate and possess distinctive personal characteristics. These characteristics invite, permit or inhibit engagement between the individual and the significant other. As each person reciprocally influences the other's lives, it is within this microsystem of the classroom where the child's feeling of belonging, love and support needs to be encouraged, in order to serve as a protective factor within the educational context. It can, however, also serve as a risk factor in a support system should the opposite be true (Berk, 2000).

The school is part of the teachers' microsystem and, according to Swart (2004), the first steps towards the development of an inclusive system would be the familiarising of stakeholders (principals, teachers, school governing bodies and parents) with policy and guidelines (and the philosophy of IE), as well as the attendance of in-service training workshops in order to integrate their learning.

The **chronosystem** "encompasses change or constancy over time in the characteristics of the person as well as the environment in which the person lives (e.g. changes over the life course in family structure, socioeconomic status, employment, place of residence, or the degree of hecticness and ability in everyday life" (Bronfenbrenner, 1994, p. 40). Systems the child or teacher are involved in change and develop continuously, which means that these changes all interact with the individuals' progressive stages of development (Donald et al., 2010). Time elements within the system can be either external, such as the timing of a parent's death, or internal, such as the psychological changes that occur as the child gets older. As the child gets older, he or she reacts differently to changes within their environment.

Bronfenbrenner postulated certain propositions for the Bioecological Theory. Bronfenbrenner (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Evans, 2000) referred to the importance of the relationships a person forms with other important people, sharing the different system levels within which he or she develops and learns. **Proposition 1** states that human development takes place through

progressively more complex reciprocal interaction. These enduring forms of interaction between the biopsychological human organism and the persons, objects and symbols take place in the immediate environment of the individual. Bronfenbrenner (1994) referred to these as **proximal processes** and emphasised that, for this interaction to be effective it needs to happen regularly over extended periods of time. Examples that he used to explain these enduring patterns of proximal processes are "parent-child and child-child activities, group of solitary play, reading, learning new skills, studying, athletic activities, and performing complex tasks" (Bronfenbrenner, 1994, p. 38). The teacher-child interaction is also an example of a proximal process within the microsystem, as well as interaction between teachers and parents, teachers and teachers, and teachers and management structures.

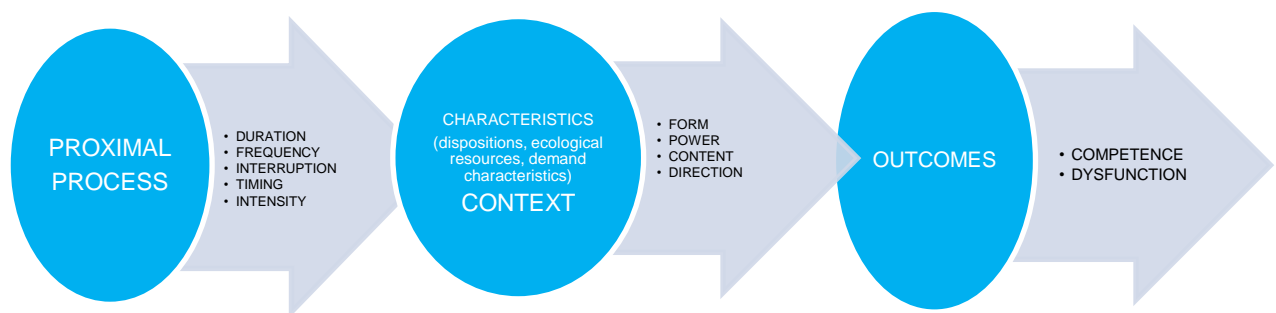


Figure 3: Representation of proximal processes according to Bronfenbrenner's bioecological model.

Proximal processes (see Figure 3 above) produce two major kinds of developmental outcomes, namely competence versus dysfunction. **Competence** refers to the acquired knowledge, skill or ability to conduct and direct one's behaviour within situations or in any domains (intellectual, physical, motivational, socio-emotional, and artistic) of development. **Dysfunction, on the other hand**, refers to continuous difficulty to maintain control, as well as the integration of behaviour in different situations or domains of development (Bronfenbrenner & Evans, 2000; Swart & Pettipher, 2011).

Another important aspect of the proximal processes in which the person engages, according to Bronfenbrenner and Evans (2000), is the so-called *Corollary la Exposure*, which refers to the extent of contact maintained between the developing person and the proximal processes in which the engagement takes place. *Duration*

refers to the time of the exposure and the length of the session; *frequency* refers to how often the sessions occur over time; *interruption* refers to the predictability of the interaction; *timing* of interaction (how soon); and *intensity*, which refers to the strength of the exposure (Bronfenbrenner & Evans, 2000). According to Bronfenbrenner and Evans (2000), developmentally-disruptive outcomes are more likely to occur when the proximal processes are brief, happen infrequently and when the occurrence is not predictable. This has significance for learners with AS, specifically pertaining to teachers' knowledge of AS.

Proposition II states that proximal processes vary in form, power, content and direction, because of different contexts in which these processes are taking place, as well as the characteristics of the developing person. Other aspects that will affect the proximal processes will be the historic period the person lives in, and the social continuities and change occurring over time during the individual's life (Bronfenbrenner & Evans, 2000). Time and timing are therefore central within these models of thinking. The time frames are relative to the lifetime of the phenomenon we are trying to understand. Time units under investigation can be seconds or millennia, depending on the phenomena studied at that moment. This has significance for the teachers' position in the new era of 'inclusive education' – the teachers can be part of the process or withstand it.

Person characteristics, according to Bronfenbrenner's Theory, are biologically based. They influence proximal processes and their developmental outcomes, hence the term "bioecological" (Swart & Pettipher, 2011). Three types of personal characteristics influence and direct the power of proximal processes. Dispositions can mobilise, sustain, interfere in or limit proximal processes, for instance attitude, efficacy and open mindedness. Ecological resources contain biopsychological liabilities and assets, more specifically genetic defects, low birth weight and physical impairments, which influence the person's capacity to engage in proximal processes. The third one is demand characteristics, which can provoke or discourage reactions from the social environment; these either foster or disrupt the psychological processes of growth (Bronfenbrenner & Evans, 2000). Examples are emotions, such as irritation versus happiness, motivation versus passivity, etc. (Swart & Pettipher,

2011). These characteristics have a direct implication for the AS child and how he/she is seen and interacted with by the teachers.

Individual functioning is studied and viewed, taking into account different levels and subsystems, and the interrelationships between them. Therefore, every aspect of the individual's development is taken into account, from subsystems of genetics, neurobiology and hormones, to those of families, social networks, communities and cultures (Bronfenbrenner & Evans, 2000).

Bioecological Theory can also be used by applying it to the readiness of teachers to support learners with AS in mainstream schools.

The **school** that forms part of the **micro- and mesosystem** will be the main system in which the teachers are directly involved. It is on this level where proximal processes are crucial, not only for the development of the child but also for the development of the teacher. On this level, continual and day-to-day interactions are taking place and reciprocal influencing is happening all the time. In the South African context, the experiences of barriers to learning and to teaching happen predominantly on the micro- and mesolevels. It is at these levels where the change and readiness of teachers for inclusive education are crucial for transformation of the whole education system.

Bronfenbrenner (1994, p. 39) states explicitly that "the effects of **proximal processes** are more powerful than those of the environmental context in which they occur". This means that the **teachers**, who are part of the proximal processes of the child, have extremely **crucial** roles to play in the development of learners. By implication, it therefore means change within themselves, as well as a **readiness for this change** and readiness to include learners with barriers to learning in their classes, specifically in this case learners with AS.

Bronfenbrenner's bioecological model is thus used as a theoretical framework for understanding change within education towards an inclusive system. This study, which explores the readiness of teachers for this very same change, specifically in relation to the support of learners with AS, will also utilise Bioecological Theory in order to shed light on the findings.

It is important to note that Bronfenbrenner's bioecological model is based on circular causality, as in systems theory. This is, according to Swart and Pettipher (2011, p. 15), the opposite to the linear cause-and-effect frequently associated with the medical deficit model. According to the theory, "change (or activity) in any part of a system or individual affects other systems and individuals, and at a later time could be seen as cause of change" (Swart & Pettipher, 2011, p. 15).

2.6 CONCLUSION

This chapter presented a framework for IE in South Africa. The meaning of the term readiness and how it applies to teachers' attitudes for the successful implementation of IE in South Africa were explored. Paradigmatic principles underlying the required shift/change needed were presented. In order to make sense of the study's research questions and findings, Bronfenbrenner's Bioecological Theory serves as theoretical framework.

In the following chapter the characteristics of AS will be presented, together with associated interventions. Thereafter, specific references will be made to the roles and expectations of teachers in classrooms.

CHAPTER 3

ASPERGER'S SYNDROME

3.1 ASPERGER'S SYNDROME: AN INTRODUCTION

Attwood (2007) states that the unusual profile of abilities that we call AS has possibly been part of some of our species throughout evolution. He says that the best way to understand Asperger's is to think of a person who thinks and perceives the world differently to other people.

The development of the term AS started with diagnostic criteria, which first appeared in the mid-forties of the previous century. These criteria were based on remarkable descriptions made by the Viennese paediatrician, Dr Hans Asperger (1906-1980), who noticed that some of the children referred to him had similar characteristics and behaviours (Asperger, 1944, cited in Attwood, 2007). He observed that some children's social maturity and social reasoning were delayed, and that their social abilities were very unusual at any stage of their development. The children had difficulty making friends, and were victims of teasing by other children. The children's use of language was pedantic, and some children's tone, pitch and rhythm of speech were affected. Asperger noticed trends towards difficulties in not only communication, but also in the control of emotions and the tendency to intellectualise feelings. He mentioned difficulty maintaining attention in class, weak organisational skills, clumsiness and extreme sensitivity to certain sounds, smells, textures and touch (Attwood, 2007; Cumine, Dunlop & Stevenson, 2010).

After the initial description, no significant research was published, until the 1980s. In 1981, Wing published a paper based on the work she had done with 35 individuals with the syndrome. This brought it to the attention of professionals again. In London, in 1988, a small international conference was held on AS, named after Dr Hans Asperger, who did most of the groundwork for the diagnosis and characteristics of this phenomenon (Cumine et al., 2010). In the same year, as a result of the discussions and papers submitted at the abovementioned conference, a diagnostic

criterion was submitted by Christopher Gilbert, and it was revised in 1991. This criterion is widely used by professionals working with AS (Attwood, 2007). In 1994, the American Psychiatric Association added Asperger syndrome to the list of pervasive developmental disorders identified in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994; Myles & Simpson, 2002).

AS is one of the conditions included in pervasive developmental disorders (PDD). PDD can be seen as an 'umbrella' term for a section that includes Autistic Disorder, Rett's Disorder, Childhood Disintegrative Disorder, Pervasive Developmental Disorder Not Otherwise Specified, and AS. The DSM IV-TR (American Psychiatric Association, 2000) uses specific criteria to diagnose AS (299.80). The essential features of AS, as described in the DSM IV-TR, are severe and sustained impairment in social interaction (Criteria A), and the development of restricted, repetitive patterns of behaviour, interest and activities (Criteria B). The disturbance causes clinically significant impairment in social, occupational or other important areas of functioning (Criteria C). There is no clinically significant general delay in language (Criteria D), cognitive development or in age-appropriate self-help skills, adaptive behaviour (other than social interaction), and curiosity about the environment in childhood (Criteria E). Finally, the criteria should not be met for another specific PDD or for Schizophrenia (Criteria F).

Myles and Simpson (2002) stress the fact that it is important for professionals working with children and youth with AS to be familiar with the diagnostic criteria laid out in the Revised DSM-IV, the DSM-IV-TR (American Psychiatric Association, 2000). However, they caution that this resource alone does not provide an understanding of the characteristics that directly relate to and affect school performance. School professionals need a working knowledge of these characteristics to effectively meet the individual needs of learners with AS at school, in the home and in the community. They caution further that "there will be no single effective practice for all children and youth with AS" and their needs "can only be addressed effectively when a variety of appropriate methods are used in an individualized fashion" (Myles & Simpson, 2002, p135).

For the purpose of this study, the DSM IV-TR will be used as an outline to describe the characteristics of Asperger's. Additional resources will be used to identify different features of AS, specifically as they relate to an adolescent with AS in a school context. The DSM 5 (the fifth edition to be published in May 2013) proposes a new diagnostic category of autism spectrum disorders which would incorporate several previously separate diagnoses. These are autistic disorder, childhood disintegrative disorder, pervasive developmental disorder not otherwise specified and then also AS (APA, 2012). This decision is motivated by a concern for recognising individual differences, for more accurate diagnoses which could lead to more focused support and for avoiding general labels that are sometimes not applied in a consistent way across settings.

3.2 CHARACTERISTICS OF AS AND ASSOCIATED INTERVENTIONS IN SCHOOLS

The prevalence of AS seems to be increasing, but still many individuals are not recognised during their school years. It is important that parents, education systems, and mental health and medical professionals are informed about the characteristics of AS. Consequently, if this condition can be recognised early, appropriate interventions can be provided to assist individuals with AS to cope successfully (Barnhill, 2001). Cumine et al. (2010) state that although class teachers do not have the solo responsibility to identify the learner with AS, they have a very big role to play in the assessment process; they are the ones who often "notice behaviour which may seem odd, unusual or different compared to that of peers" (Cumine et al., p. 151).

The characteristics of AS will be discussed according to the criteria (A-E) as categorised by the DSM-IV-TR (American Psychiatric Association, 2000), followed by more features identified in the literature.

3.2.1 Socialisation

According to Attwood (2007, p. 55), "In solitude, the child does not have qualitative impairment in social interaction", although he also states that social impairment is one of the essential features of learners AS. This refers to a lack of social or emotional **reciprocity** and an inability to develop peer **relationships** appropriate to

developmental level. According to the DSM-IV-TR, the essential feature of the impairment of social interaction is the fact that it is continuous and encompassing.

Individuals with this diagnosis cannot **read** between the lines to infer the thoughts and beliefs of others. They are typically socially stiff, act awkward, are emotionally blunt and self-centred, are deficient at understanding non-verbal cues, and inflexible. They fail in the development of peer relationships that are appropriate to their developmental level (Cumine et al., 2010; American Psychiatric Association, 2000).

The DSM criteria stipulate that a person with Asperger's lacks the skill or desire to spontaneously seek and to share enjoyment, interests or achievements with other people, as well as exhibits a lack of social or emotional reciprocity (American Psychiatric Association, 2000). Although there is consensus in the literature about the lack of social skills in individuals with AS, there is contradiction regarding the **desire** to socially interact. According to Barnhill (2001), individuals with AS desire social interaction with others, but lack the skills in initiation and responding to different situations. John Robison (2007, p. 6) writes in his biography, *Look me in the eye*, that "I can't speak for other kids, but I like to be very clear about my own feelings: I did not ever want to be alone", and also, "I always imagined myself being around other people, even though I had a hard time interacting with them". Even if they do seek out others, they end up being socially isolated because of the inability to understand social cues (Myles & Southwick, 1999).

Therefore, although these individuals have a need to have friends, their social skills deficits **isolate** them from their peers. Lack of understanding of social cues, problems with language comprehension, as well as the literal interpretation of other's words affect their ability to build and maintain **friendships** (Cumine et al., 2011). In the light of such difficulties, the learners become especially prone to **bullying** in the middle and high school, when social deficits become more apparent (Attwood, 2007; Myles et al., 2005).

Myles et al. (2005) differentiate between three common socialisation difficulties experienced by learners with AS. First of all, the conversation style is typically a **one-sided** interaction style, **non-reciprocal** and **focused** on a specific topic fascinating to them, but not necessarily to the conversational partner. Secondly, they are **blunt**

and would say exactly what they think, which might seem rude and insensitive. Thirdly, they have difficulty with **social nuances** or the so-called 'hidden curriculum', which specifically needs to be taught.

Kaufman (2002) states that the school programme that would be the most effective for learners with AS would stress **consistency** and **predictability** in a well-structured school day with little schedule deviation, **systematic social skills and language training** that includes the use of certain communication skills in social situations, as well as social problem-solving skills. He also stresses social mentoring by an adult or another peer who can cue the learner when he needs to use a certain skill in a new situation. Pimley and Bowden (2007) suggest that "peer tutoring" groups or the "circle of friends" can also be used effectively to assist the learner with AS socially. The group usually consists of six to eight learners and an adult. The function of the circle would be encouragement and recognition of success, identification of difficult situations and the planning strategies to achieve targets, as well as assistance to put new ideas into practice (Cumine, Dunlop & Stevenson, 2010; Pimley & Bowden, 2007).

Implicit knowledge about the way we **govern social interaction** is lacking in individuals with AS and therefore **social skills need to be taught explicitly** (Humphrey & Lewis, 2008). Specific social skills that can be taught are the maintaining of eye contact, listening, not interrupting, giving and receiving of compliments, empathising with others, understanding and using body language, initiating and ending conversations, table manners, working in small groups, awareness of body space, and understanding the expectations of the community regarding things like travel and entertainment (Darretxe & Sepúlveda, 2011; Waltz, 2002).

Darretxe and Sepúlveda (2011) state that a child with AS should never be forced to play, but strategies on **how to play** should be taught. They also stress the importance of taking into account the underlying anxiety in individuals with AS, which can make group work quite daunting. Also, these individuals need a **quiet area** in the classroom to where they can withdraw if they feel anxious and overwhelmed by the social environment.

According to Myles et al. (2005), some of the **instructional strategies** that can be used to facilitate the above-mentioned skills are direct instruction, social stories – a validated and widely used approach (Howley & Arnold, 2005), cartooning, and power cards, in which the child's special interests are utilised in the understanding of social situations. The Incredible 5-Point Scale is another strategy that can be very useful to regulate social behaviour. This scale uses numbers and visual cues to represent abstract ideas such as feelings, behaviour and emotions. The learner with AS is assisted to develop a rating scale to monitor the stage of the specific challenge and learn how to handle it (Dunn & Curtis, 2003).

Krasney, Provencal and Ozonoff (2003) emphasise several key principles that should be considered, no matter which strategy is used: the presentation of abstract concepts in a concrete way, the provision of structure and predictability, the use of scaffold language support, the use of multisensory techniques, the presentation of material and programmes in a sequential and progressive manner, and the provision of opportunities for generalisation of newly learned skills to other situations.

3.2.2 Communication/Language

Attwood (2007) states that, in his opinion, unusual language abilities form a central characteristic of AS. The American Psychiatric Organization's diagnostic criteria for AS in the DSM-IV, as well as the World Organization criteria in the ICD-10, refer to language abilities, but state that there is no clinically significant general delay in language. According to Attwood, the diagnostic criteria of Christopher Gilbert (1991) and Peter Szatmari and colleagues (2000) are more comprehensive in describing the characteristics of a learner with AS. They include delayed speech development, **superficially** perfect expressive language, formal pedantic language, odd prosody, peculiar voice characteristics and impairments of **comprehension**, including misinterpretations of literal/implied meanings (Cumine et al., 2010; Gillberg & Gillberg, 1989) and abnormalities in **inflection**, talking too much, talking to little, lack of cohesion to conversation, idiosyncratic use of words, and repetitive patterns of speech (Szatmari, Bremer & Nagy, 1989).

AS learners experience difficulty with **abstract concepts** that present themselves in conversation, for instance they struggle with homonyms, metaphors, idioms, parables, allegories, irony, sarcasm and rhetorical questions (Myles et al., 2005).

Non-verbal communication also poses some difficulties in the sense that learners with AS find it difficult to use and interpret non-verbal communication effectively and appropriately. Examples of this would be the use of inappropriate facial expressions and gestures, awkward body language, difficulty with social proximity, peculiar or stiff eye gaze, lack of correct interpretation and reading of facial expression and body language of others (American Psychiatric Association, 2000; Myles et al., 2005). Although there are no clinically significant delays in early language development, their language use might be unusual because of a **preoccupation** with certain topics and their long-windedness (Cumine et al., 2010).

Darretxe and Sepúlveda (2011) emphasise the fact that individuals with AS have good language and grammar skills, and have a large vocabulary, but experience difficulties with semantics and the pragmatics of language. Therefore, specific objectives need to be put into place to help them with communicative intent, improvement of comprehension and the ability to initiate and maintain a conversation. Because learners with AS may miss the subtleties of expression or emphasis of key concepts, for instance in a lecture in class, it is helpful to have outlines or key words written down (Attwood, 2007; Silverman & Weinfeld, 2007).

Silverman and Weinfeld (2007) suggest that the use of sarcasm, jokes with double meaning and the use of nicknames should be explained to the learner with AS. Further, they state that ambiguous language like idioms, metaphors and figures of speech need to be either avoided or explained. Attwood (2007) suggests the use of role-plays, audiotapes or movies to explain the way tone, inflection or emphasis on certain words changes, as well as the reasons for this.

Non-verbal language skills need to be taught explicitly, for instance appropriate use of personal space, facial expression and gestures (Cumine et al., 2010; Silverman & Weinfeld, 2007).

3.2.3 Patterns of Behaviour, Interests and Activities

Criteria B relates to the restricted repetitive and stereotyped patterns of behaviour, interests and activities displayed by these individuals. The impairment of repetitive patterns of behaviour might include preoccupation with one or more stereotype and restricted patterns of interests that are abnormal in focus as well as intensity. Often it results in preoccupations with certain topics or interests, and the individual can obtain and relay a great deal of fact and information regarding this topic and interest (American Psychiatric Association, 2000). According to Attwood (1998), these tendencies have not been adequately defined in the literature, despite the fact that it can drive families "insane" and are relatively stable over time. The individual might have an intense interest in collecting certain items at every opportunity. There tends to be a shift from collecting items to developing fascination with a topic. The person develops an encyclopaedic knowledge about the topic, and pursues every possible opportunity to obtain more knowledge about it. The topic does not relate to the latest trend or craze of his or her peers. A common feature is fascination with statistics, order and symmetry (Attwood, 1998). The pursuit of these interests is often solitary and idiosyncratic, and dominates the individual's time and conversation.

Attwood (2007) states that he is uncertain whether routines and rituals are core to AS, or part of a state of heightened anxiety that is often co-morbid to AS. He speculates that these elements can play a role of a coping mechanism to cope with their unusual cognitive abilities. It might, according to him, serve as a means to predictability, because they cannot tolerate surprises, chaos or uncertainty.

According to Myles and Simpson (2002) there is no specific pattern to the development of the type of special interest. It can be expressed in various forms, start as young as two years old and is characterised by unusual intensity and duration. In an extensive data search done by Winter-Messiers (2007), it was found that these interests can vary from deep-fat fryers, the passenger list of the Titanic, waist measurements, Rommel's desert wars and paper bags, to globes and maps, photocopiers, propeller planes, dust, shoes and more. They sometime are expressed in the form of eccentric play, like acting as if they are a machine, ball or even a toilet. Sometimes it can also be a topic on which the learner will collect facts and figures,

such as a specific sport about which they will collect and memorise extreme statistics.

One of the attributes of such a special interest is that it is usually self-directed and self-taught and does not correlate with the latest trend. Also, it might often not be shared and practised on the person's own. Speculations about the function of these special interests exist. The possibilities are that such special interests provide ways to overcome anxiety, provide pleasure, means of relaxation, predictability and means of understanding the physical world, allow the creation of alternative worlds, provide means of creating an identity and ways to occupy time, facilitate conversation and provide an indication of indelibility (Attwood, 2007; Myles & Simpson, 2002).

Another characteristic that might be linked, or may stand independently of special interests, is the tendency for the individual to establish and enforce routine (Cumine et al., 2010). A change in routine, as well as lack of completion of tasks, leads to anxiety and distress. Unfortunately, the cycle of this obsession with order might increase over time (Attwood, 1998).

The impairment has an impact in the area of social adaptation, which might be so major that it impacts self-sufficiency, livelihood and other important areas of functioning. These social deficits and restricted patterns of interests, activities and behaviour may cause significant challenges. These challenges make learners with AS prone to bullying and therefore Silverman and Weinfeld (2007) emphasise the fact that a school should develop a zero tolerance policy for bullying and teasing.

Individuals with AS are most commonly defined by a deficit model, in other words these individuals are characterised mostly by the characteristics that they lack. The DSM-IV-TR diagnostic criteria for AS focus entirely on deficits, excluding strengths (Winter-Messiers, 2007). Winter-Messiers (2007) suggests a strength-based model, alongside and complementing the traditional deficit model, for viewing individuals with AS based on a study of their special interests areas (SIAs). According to her, SIAs are "those passions that capture the mind, heart, time, and attention of individuals with AS, providing the lens through which they view the world" (Winter-Messiers, 2007). Attwood (2006) states, that parents and teachers often perceive the SIAs as bothersome and as activities that hinder social interactions and therefore

should be obscured. However, Asperger (1944, cited in Attwood, 2007) recognised the fact that these SIAs can help people with AS to achieve levels of performance that are unusual in certain areas. Myles et al. (2005) also emphasise the fact that incorporating special interests into the curriculum for learners with AS is one way of making tasks that may seem overwhelming and meaningless more interesting to them.

Winter-Messiers (2007) found, in a research study conducted with 23 participants with AS aged seven to 21, that there is a strong positive relationship between individual strengths in typically deficit areas and the engagement in special interest areas. These areas include communication, socialisation, executive functions, emotion, and sensory, fine-motor as well as academic skills. Some individuals' AS-typical impairments diminished when talking about their SIAs and, in some cases, their functioning in one or more of the deficit areas improved. Winter-Messiers suggests that incorporating a learner's SIAs into school, home and community activities can result in positive changes in attitude, motivation, skills, engagement, compliance and the general well-being of the learner. Furthermore, according to Winter-Messiers (2007), these individuals see the SIAs as more than a hobby or leisure activity, rather as an integral part of themselves.

3.2.4 Cognition and Academics

The early language and cognitive skills of individuals with AS may be within normal limits within the first three years of life. Therefore parents and caregivers are usually not concerned about the child's development during this time, even though they might exhibit unusual behaviour. Their vocabulary seems to be rich and mature. Usually, up until preschool, the parents are not concerned about the subtle social problems. At this point, social difficulties with same-age peers become apparent. Therefore, although individuals with AS have average or above average intelligence, they may experience academic difficulties. They could lack higher level thinking, and consequently have problems with comprehension, as their thinking tends to be literal. Their comprehension is frequently on the factual level and their problem-solving skills are weak. They also experience difficulty in generalising their knowledge and skills and applying these to different settings and with different individuals. Teachers frequently miss these special education needs, because the learners give the

impression that they understand more than they do. Their pedantic style, elaborate vocabulary and professor-like style mask their deficits (Attwood, 2007; Myles et al., 2005).

Attwood (2007) describes learners with AS as having "**distinct learning styles**"; they understand logic and the physical world, notice detail and can remember and arrange facts systematically. There is often an assumption that they should be able to cope in mainstream school; however, there are certain aspects of their cognition that may bring about some challenges of which teachers should be well aware. Time and again teachers are subjected to the realisation that learners with AS often possess advanced intellectual abilities, but **do not produce the quality of schoolwork** expected. A concrete and literal black-and-white thinking style may lead to difficulties with abstract concepts. Myles et al. (2007) state that, although learners with AS may have an above average rote memory, the information could merely be a disconnected set of facts which they have not necessarily mastered with insight or can apply. The ability for transfer or to generalise this knowledge to other situations, settings and people does not always exist.

Myles and Simpson (2002) mention that many learners with AS process information in a style that is usually incompatible with the way academic material is traditionally presented in class. According to them, experiences of difficulty in processing auditory information may occur. The children may, despite the fact that they have average ability, find it difficult to process auditory and visual information simultaneously. Furthermore, they need extended time to understand words used in sentences and paragraphs (Myles & Simpson, 2002).

Besides the fact that learners with AS may easily be distracted, they experience difficulties to **pay, sustain and shift attention**. They have challenges with **problem solving**, make use of their own idiosyncratic strategies and approaches that have worked in the past, and do not learn from their mistakes. On top of this they find it **difficult to cope with mistakes**, they tend to be perfectionist and focus on their errors in a one-track-minded manner, and fear failure. These aspects, as well as the fact that their interests are narrow and obsessive, and their difficulties to differentiate relevant and irrelevant information, cause extreme academic challenges (Attwood, 2007).

Attwood (2007) states that learners with AS seem to advance academically better in a quiet, **well-structured classroom**. In addition, the greatest cognitive and academic progress has been achieved, according to him, by empathetic and flexible teachers. "They invariably like the child and admire the child, respect his or her abilities and know the child's motivators and learning profile" (Attwood, 2007, p. 258).

Interventions that can be used to keep individuals with AS involved in the learning process are the use of graphic **organisers** and providing additional explanations of concepts used in a lesson (Williams, 1995, in Griffin et al., 2006). Furthermore, assignments can be **broken down** into smaller parts and nonverbal signs can be used to get their attention (Griffin et al., 2006). Myles and Simpson (2002) suggest **pre-teaching** of material before a lesson is taught (priming), modification of assignments (more time, less problems presented at once, alternative to traditional assignments, etc.) and structural strategies like visual supports. Also, graphic organisers can be used to show the relationship between key concepts, outlines to grasp the main ideas and major points of information, timelines to plan the use of their time, and homework notebooks to show homework tasks and due dates.

Attwood (2007) suggests using a homework and **logbook** exchange system between school and home in which the teacher can provide written explanations regarding assignments and highlight key aspects of homework. He also believes that learners with AS should be exempt from more homework than 30 minutes a day, except when they choose to do it.

Griffin et al. (2006) suggest using **enrichment** assignments within the classroom for the many AS learners with a higher level of intelligence. On top of this, Kaufman (2002) suggests the modification of instructions and assignments, which can include pre-teaching of skills, individual instruction as well the modification of written assignments to suit the individual's needs.

3.2.5 Neuropsychological Challenges/Models of Child Psychological Functioning

In order to provide sufficient education for learners with AS it is important to understand the "nature of the impairment, sources of the difficulties and areas of strengths – in effect the cognitive style" (Cumine et al., 2010, p. 168). Up until now,

autism in general has been seen as an organically-based disorder in which individuals exhibit identifiable behaviours, but Cumine et al. (2010) state that the level of psychological functioning has been ignored. These authors continue by stating that it previously had been assumed that language and behaviour caused social difficulties. Now, a shift in emphasis has taken place and the "difficulty in social interaction and understanding is seen to both underpin the difficulty in communication and cause many difficulties in behaviour" (Cumine et al., 2010, p. 170).

In order to explain the sources of social difficulty at the psychological level, different models will be discussed:

Central coherence deficit refers to the fact that some individuals with AS can see details in a situation, but do not have the ability to see the bigger picture. Frith (1989, in Cumine et al., 2010, p. 211) describes central coherence as "the tendency to draw together diverse information to construct higher-level meaning in context ...". Individuals who process normally can make sense of events according to their context, but this is not the case for individuals with AS. The way it affects them in school is that it might be difficult to complete a whole task because they concentrate on detail, are inattentive to new tasks, find it difficult to prioritise and choose and experience difficulty seeing connections and generalising skills and knowledge (Cumine et al., 2010).

Cumine et al. (2010) suggest that a teacher should clearly mark the beginning of each task, use a list of the steps to follow in order to complete the task, as well as pictograms and diagrams. An image, model or picture of the completed task will also be helpful so that the learner with AS knows exactly what is expected. Ambiguity can be avoided by using visual cues and the individual should be taught explicitly how to choose and prioritise when exposed to a new task. Furthermore, it is important to create opportunities for the generalisation of new knowledge and competencies (Cumine et al., 2010).

Learners with AS experience challenges with **executive functioning**, the neurological processes of making decisions, initiating action and planning for future actions and goals (Darretxe & Sepúlveda, 2011; Myles et al., 2005). They experience difficulties with organisation and planning, working memory, inhibition and impulse

control, self-reflection and self-monitoring, time management and prioritising, understanding of complex and abstract concepts, strategic thinking as well as the use of new strategies (Attwood, 2007; Darretxe & Sepúlveda, 2011; Myles et al., 2005). These difficulties seem to affect learners especially in secondary school when the curriculum becomes more complex and they have to rely on their own ability to organise, structure and plan. They are often seen as lazy and uncommitted. AS learners tend to think in pictures rather than words, and they have an inability to weigh up options in their heads. They often have conversations with themselves regarding a problem that needs to be solved. Although their peers might think they are weird, it is very helpful for teachers to understand their different thinking styles better (Attwood, 2007).

One of the strategies to reduce the challenges associated with impaired executive functioning is, for the individual with AS, to have an executive secretary (Attwood, 2007). It is important that tasks should be clearly defined and explained by making use of steps to carry them out. Cumine et al. (2000) suggest the specifying of sub-objectives to accomplish a task, help with the identification of the main idea in new information, as well as connect new knowledge with prior knowledge. It is important to help the learner with AS to see the whole picture instead of just focussing on the detail (Cumine et al., 2000).

It is important to encourage flexible thinking from an early age by always making the child with AS aware of alternatives and by playing the game, 'What else could it be?' It is also important that the adult working with the child with AS vocalises, and therefore models problem-solving skills (Attwood, 2007).

Theory of mind or mindblindness refers to "the ability to think about other people's thinking and, further, to think about what they think about our thinking, even further, to think about what they think we think about what their thinking, and so on" (Cumine et al., 2010, p. 171). From the age of four years, children understand that people have thoughts, knowledge, beliefs and desires. Individuals with AS find it difficult to understand and value the feelings and thoughts of other people, and this is referred to as **theory-of-mind deficits** (Attwood, 1998). Individuals with AS would not understand that something they say might cause hurt and that an apology might repair what has been said. Myles and Southwick (1999) list the following as theory-

of-mind difficulties individuals with AS experience: inability to explain their own behaviour, problems with understanding emotions, problems predicting the behaviour or emotional state of others, difficulty understanding the perspective of others, difficulty inferring the intentions of others, lack of understanding that behaviour impacts how others think or feel, difficulty with joint attention and other social conversations (e.g. turn taking and politeness), and difficulty differentiating fiction from fact. This inability could make them appear self-centred and uncaring (Myles et al., 2005).

Cumine et al. (2010) suggest that in order to correct the fundamental deficits one should work with more than just the surface behaviour. Darretxe and Sepúlveda (2011) suggest that explicit instructions should be given to learners with AS to help them recognise the effects of their actions on others, and to change their behaviour accordingly (Cumine et al., 2010). One should not assume that the context clarifies the meaning to the individuals. They should for instance be taught explicitly to react appropriately in the interest of the other person who is listening to them. It is also important that they anticipate what others might think of their behaviour and therefore pay close attention to the activity they are carrying out. Furthermore, in interacting with individuals with AS, one should not assume that they have understood the intention of our behaviour (Darretxe et al., 2011). The meaning should be related, where possible, to the perspective of the individual (Cumine, 2010).

3.2.6 Motor/Movement/Coordination

Attwood (2007) states that individuals with AS not only have a difficult way of thinking, but also a different way of moving. Asperger, according to Attwood (2007), himself noted motor clumsiness as one of the defining characteristics of AS. Wing, according to Cumine et al. (2010), observed that children with AS at times have poor motor skills, as well as difficulties with coordination and balance. These difficulties present themselves as an impression of clumsiness in at least 60% of individuals with AS. This clumsiness can be described better as poorly planned movement and slower mental preparation time, which presents itself in children with AS as immature coordination when walking and running, while it presents itself in older children as an idiosyncratic gait that lacks fluency and efficiency (Attwood, 2007). These deficits

have direct implications and affect sports, writing skills, art, social skills and more (Myles & Simpson, 2000).

Activities that require balance and coordination, like learning to ride a bike, can be affected and some children with AS can be immature in the development of the ability to catch, throw and kick a ball. Teachers may notice problems with fine motor skills, such as ability to write or to use a scissors (Attwood, 2007). According to Myles et al. (2005), handwriting is illegible because of too heavy pressure, poor spacing, and letter size that is too big or small. Individuals with AS dislike any tasks associated with writing, because it is not only uncomfortable and painful, but also emotionally and physically draining. This can wrongly be seen as defiance and non-compliance, and can directly affect a learner's creativity if he or she concentrates on the mechanics involved in writing instead of writing itself (Myles et al., 2005).

Appropriate accommodations need to be made for challenges with fine motor skills and handwriting. Since handwriting is becoming an obsolete skill in the twenty-first century, according to Attwood (2007), **keyboarding** skills should be taught from an early age so that these individuals can become fluent in typing. Myles et al. (2005) suggest **modifying assignments** and tests by incorporating multiple choice, fill-in-the-blanks, matching, and short answer questions rather than essays. They also suggest allowing the learner to use a computer to type information, oral exams instead of written exams, making use of a scribe as well as providing outlines of main ideas and key points of lectures and presentation (Myles et al., 2005). Griffin et al. (2006) stress the importance of occupational therapy to enhance fine motor skills during the early developmental years.

Attwood (2007) suggests that **ball skills** should be taught from a young age to ensure that the child has the basic competence to be included in popular ball games. On the other hand, Griffin et al. (2006) suggest health and fitness programmes instead of competitive sport.

3.2.7 Sensory Issues

Individuals with AS might experience some abnormal sensory sensitivity in which one or more sensory system is so affected that ordinary sensation can be unbearable. The anticipation of such an experience can lead to intense **panic or anxiety**.

Although the most common sensory issues are related to sound and touch, they can also relate to taste, texture of food, light intensity, colours and aromas. On the other hand, their experience of pain may fluctuate between minimal and extreme levels of pain and temperature that would be unbearable to others (Attwood, 1998). Some adults with AS consider their sensory sensitivity to have a bigger impact on their day-to-day lives than their social skill problems, emotional management or finding employment (Attwood, 2007).

According to Aylott (2000), most individuals with AS have some issues with their senses. They experience problems with the processing of information from one or more of the seven sensory systems. The most common sensitivity is to specific sounds, tactile experiences, light, the taste of some foods as well as specific smells (Attwood, 2007). The sensitivity to stimuli can be either over-sensitive or under-sensitive. Sensory overload often causes a 'fight or flight' reaction in these individuals (Myles et al., 2005). Myles et al. (2005) state that sensory difficulties can be responsible for much of the negative behaviour and for many unpleasant emotions. Children with AS become hyper-vigilant, tense and distractible in sensory-stimulating environments like a classroom, because they are afraid of the pain caused by such experiences. The signs are more prominent in childhood, and although they become less during adolescence, it could be prominent in some adults with AS (Attwood, 2007).

Sound sensitivity can be perceived as very unpleasant. It has to do with the fact that children with AS do not always efficiently or accurately interpret auditory information. They may be hyper- and/or hyposensitive to noise and respond negatively to it. The types of noises can be sudden, unexpected noises, high-pitched noises or confusing, complex or multiple sounds (Attwood, 2007).

Individuals with AS can also experience sensitivity to a specific type of **touch**, the degree of touch or the particular part of the body being touched. Myles et al. (2005) mention that standing in a line, taking a bath, unexpected touch, and touch that is either too light or too heavy can potentially be very stressful for the individual with AS.

According to Attwood (2007), parents often report the remarkable ability of their children with AS to detect and being hypersensitive to **smells** that are not noted by other people. Myles et al. (2005) mention avoidance and pickiness about certain foods, and having a very restricted diet as characteristics of sensory issues. Even though the visual system seems to be a relative strength in individuals with AS, they sometimes experience hypersensitivity to light, have poor hand-eye coordination and depth perception, and experience hyposensitivity, which makes it difficult to find objects. These individuals also sometimes experience sensitivity to certain levels of illumination or to colours (Attwood, 2007; Myles et al., 2005).

Some individuals with AS experience difficulties with their **vestibular** system, have low tolerance for movement, and find it difficult to change the direction and speed of their movement. They may display gravitational insecurity and might feel insecure as soon as their feet leave the ground, or when they have to change their body position fast. Crashing into objects and rocking may be a way of seeking vestibular input. At times they might seem to be clumsy or find it difficult to switch gears (Attwood, 2007; Myles et al., 2005).

Individuals with AS experience difficulty with the **proprioception** system of movement, which provides information to an individual about his/her surroundings. An example is when a person would carry a backpack on his/her back and walk through a packed hallway. Some individuals with AS do not have this ability and this presents in a lack of coordination, poor posture and chronic fatigue (Myles et al., 2005).

Attwood (2007) suggests that children should be taught, by making use of social stories, the importance of sharing pain with adults. Thomas et al. (1998) suggest that there should be intervention in areas of sensory stimulation like reducing sources of noise and gradual increase and exposure to a variety of sounds to desensitise the individual. Overactive reactions to touch can be handled by giving the learner a warning when one approaches them, getting permission to discuss their needs with their classmates, and providing a space close to a door and away from other learners. As with hypersensitivity to visual stimuli, a distraction-free work area should be provided, limiting visual distractions (Thomas et al., 1998).

3.2.8 Emotions

Different sources suggest that individuals with AS have clinically significant difficulty with the understanding, expression and regulations of emotions (Attwood, 2007; Szatmari, 1989). According to Attwood (2007), extensive clinical experience and autobiographies confirm that individuals with AS have an invariable **immaturity and confusion with feelings**. The DSM-IV TR (American Psychological Association, 2000) does not include a specific evaluation of a person's ability to understand and express emotions. An evaluation is needed not only to screen for this aspect, but also to screen for the possibility of an additional mood disorder, especially anxiety or depression.

All individuals feel a little anxious at times, but many individuals with AS are prone to being anxious for most of their day and seem to be extremely anxious about specific events. Marc Segar (1974-1997), who had AS, wrote in his book, *The battles of the autistic thinker*, that one thing individuals with autism are good at is worrying. The specific event that can cause feelings of anxiety can be unanticipated change in routine, public criticism or praise, or a sensory experience like a siren going off unexpectedly (Attwood, 2007).

Individuals with AS seem to be vulnerable to feeling **depressed**, and about one in three individuals suffer from clinical depression (Kim et al., 2000). According to Attwood (2007, p. 140), the reasons for individuals with AS to experience depressed mood include "long term consequences on self-esteem of feeling unaccepted and misunderstood, the mental exhaustion from trying to succeed socially, feelings of loneliness, being tormented, teased, bullied and ridiculed by peers, and a cognitive style that is pessimistic, focusing on what could go wrong".

There is no certainty about the prevalence of **anger** in individuals with AS, but it is known that the family of the individual are overwhelmed by the frequency, intensity and consequences of anger outbursts. The rapidity and the intenseness of anger, in reaction to a relatively frivolous event, can be extreme for an AS individual. There is a change of momentum from zero to ten without warning. It seems as if the person with AS is not able to stop and think of alternative strategies to resolve the situation. At times there is an instant physical response without thinking about it. When the

anger is intense, the person experiences a "**blind rage**" and is unable to see the signal that indicates that it would be appropriate to stop. Individuals with AS sometimes can respond in anger in a situation where other emotions are expected (Attwood, 2007, p. 143).

As a direct response to the frustrations in the learning environment, children with AS experience anxiety, depression, aggression and hyperactivity (Griffin et al., 2006). According to Williams (1995, in Griffin et al., 2006), a preferred intervention strategy would be the writing of familiar behaviour patterns on a card and suggesting to the child to read the list during the day to comfort him or her. Consistency and predictability, preparation for changes that are going to take place, the avoidance of surprises, as well as being patient in interaction will be useful to regulate emotions (Griffin et al., 2006). As mentioned before, difficulty in social interaction and understanding is seen to underlie the difficulty in communication, which may cause many difficulties in behaviour (Cumine et al., 2010). Therefore, the anxiety, depression and aggression can be caused by frustration with difficulties in social interaction and understanding, and whoever is working with the learner with AS should be mindful of this and interpret behaviour with this in mind.

3.2.9 Co-morbid Conditions

On top of the complexities of this disorder, individuals with AS may have co-morbid conditions such as anxiety, ADHD, depression, borderline personality disorder, OCD, Tourette's syndrome and anorexia nervosa (Attwood, 2007; Cumine et al., 2010; Myles et al., 2005). According to Myles et al. (2005), the most common co-morbid condition is depression, and these authors caution middle and high school teachers to be aware of the signs of depression in this age group.

3.3 CONCLUSIONS REGARDING COMMON CHARACTERISTICS OF LEARNERS WITH AS AND THE SUPPORT NEEDED

Even though the characteristics of AS were discussed in detail in Section 3.2, it is at this time valuable to share a chart (created by Myles et al., 2005, p. 6) constituting an overview of some of the common characteristics of individuals with AS. This will act

as a reminder to the reader of these characteristics when the support of the learner with AS is discussed in the next section.

Myles et al. (2005, p. 6) categorise the main characteristics of AS according to impairments in socialisation, communication, cognition and sensation. They agree with other researchers (Attwood, 2007; Cumine et al., 2010; Darretxe & Sepúlveda, 2011) that these characteristics 'exist on a continuum', and that individuals are different and unique and the symptoms of these challenges vary on a daily basis. Figure 4 is a representation of sample characteristics that might affect the experience of the learner with AS in the mainstream classroom.

Common Characteristics of Persons with Asperger Syndrome	
Social Challenges	
◆	Lack of understanding of social cues and subtleties
◆	Literal interpretation of others' words
◆	Difficulty engaging in reciprocal conversation
◆	Tendency to speak bluntly without regard for impact of words on others
◆	Universal application of social rules to all situations
◆	Focus on single topic of interest that may not be of interest to others
Communication Challenges	
◆	Difficulty understanding social nuances such as sarcasm or metaphor
◆	Echolalia – may repeat last words heard without regard for meaning
◆	Poor judge of personal space – may stand too close to other students
◆	Abnormal inflection and eye contact
◆	Inappropriate facial expressions or gestures
◆	Difficulty interpreting others' nonverbal communication cues
Cognition Challenges	
◆	Poor problem-solving and organizational skills
◆	Concrete, literal thinking
◆	Difficulty differentiating relevant and irrelevant information
◆	Obsessive and narrowly defined interests
◆	Difficulty generalizing and applying learned knowledge and skills across different situations, settings, and people
Sensory and Motor Challenges	
◆	Over- or under-sensitivity to different sensory stimuli, including pain
◆	Difficulty with fine-motor skills, such as handwriting

Figure 4: Common characteristics of individuals with AS (Myles et al., 2005, p. 6)

3.3.1 Specific Suggestion for Teachers to Support Learners with AS in the Mainstream School

Safran (2002, p. 61) states that "although relatively few students with Asperger's have been formally recognized, growing awareness and attention in the education community will likely lead to significantly increased identification". Learners with AS

have distinctive needs, and these needs should be taken into account to support them effectively in the mainstream classroom.

Darretxe and Sepúlveda (2011, p. 866) conclude that the "players needed for inclusion include the entire education community". Specifically, the mainstream teacher needs adequate support and these authors specifically identify training to "enhance their professional competency" (Darretxe & Sepúlveda, 2011, p. 886), support services, specific opportunities for collaboration with other professionals in terms of training, analysis, guidance and reflection, and sharing common solutions and experiences.

Myles et al. (2005, p. 7) stress the fact that the weaknesses of these learners are often overlooked because of their strengths. Further, learners with AS do not internalise social rules, and therefore their "behaviours may be misinterpreted as 'spoiled or manipulative', and result in the mistaken impression that children with AS are being defiant and troublemakers (Wagner, in Myles et al., 2005, p. 7). At the same time, Safran (2002, p. 65) states that individuals with AS are often "highly intelligent, and technologically, mathematically, or scientifically astute, have the potential for momentous contributions to our society – the cure for common cold may be down their narrowly focused paths".

To summarise common classroom difficulties, Dr Myles and her team (2005) created a chart (Figure 5) as a quick reference guide for teachers:

Common Classroom Difficulties of Those with Asperger Syndrome

Interests limited to specific topics	Low frustration tolerance
Insistence on sameness/difficulty with changes in routine	Poor coping strategies
Inability to make friends	Restricted range of interests
Difficulty with reciprocal conversations	Poor writing skills (fine-motor problems)
Pedantic speech	Poor concentration
Socially naïve and literal thinkers	Academic difficulties
Tend to be reclusive	Emotional vulnerability
Difficulty with learning in large groups	Poor organization skills
Difficulties with abstract concepts	Appear "normal" to other people
Problem-solving abilities tend to be poor	Motor clumsiness
Vocabulary usually great; comprehension poor	Sensory issues

Figure 5: Common classroom difficulties of those with AS (Myles et al., 2005, p. 7)

Looking at the difficulties experienced by learners diagnosed with AS, it would thus seem as though a teacher in a mainstream school has an important role to play in supporting these learners (Attwood, 2007; Cumine et al., 2010; Darretxe & Sepúlveda, 2011; Humphrey & Lewis, 2008; Safran, 2002; Myles et al., 2005). The role of the classroom teacher is compared by Cumine et al. (2010, p. 298) to that of a conductor of an orchestra, who is the one who keeps "everything together and in tune". It seems to be a central role, which requires **in-depth knowledge** about AS by teachers, as well as certain very important attributes of teachers, especially in their **attitudes** towards difference as well as in their **willingness** to adapt, and thus change. In an inclusive classroom, it is expected from the class teacher to **create an environment** in which different styles and needs are recognised and where individuals are supported and valued.

In a guide developed by Myles et al. (2005, p. 1), they emphasise the fact that, on top of intelligence, passion and enthusiasm, teachers of learners with AS will also require "patience, sensitivity and creativity". The 'heart' of this document is a six-step plan that can be used for the inclusion of learners with AS. The plan, which presents a "constructive framework for how to approach the inclusion of a child with AS in your

classroom" (Myles et al., 2005, p. 21), includes the following important aspects: the need to educate yourself, to reach out to parents, to prepare the classroom, to educate peers and promote social goals, to collaborate on the development of the educational programme and, lastly, to manage behavioural challenges.

According to other literature (Attwood, 2007; Cumine et al., 2010; Darretxe & Sepúlveda, 2011; Silverman & Weinfeld, 2007), there are specific areas the teacher needs to focus on to accommodate the needs of a learner diagnosed with AS. The creation of a warm and calm working **environment**, in order to ensure that the **structure** of the classroom is clearly laid out (Cumine et al., 2010). For instance, the effectiveness of headphones or ear plugs can be explored to shut out troubling noises (Safran, 2002). It is also important that teachers pay attention to the classroom **processes**. For instance, group work can be extremely challenging for some learners, and teachers need to pay careful attention to the make-up, structure and process of group work. Self-selection should be avoided and learners need to be taught how to operate in a group (Safran, 2002). The teacher should always focus on the **individual** learner as part of a class and not exclude the learner (Cumine et al., 2010). According to Safran (2002, p. 64), the teacher can also serve as "the bridge between the learner and the rest of the class".

On top of this, a teacher needs to **modify tasks** to enhance the learner's strength and make sure the learner understands what is expected. Gradual introduction of choice and decision making, grading of tasks and then gradually increasing the difficulty are equally important (Cumine et al., 2010). Also important are being part of the **planning of IEPs**, recording and monitoring the learner's **progress**, and implementing and **evaluating** intervention strategies. Getting the appropriate **training**, being part of the **collaborative** process and working closely with a **support team**, and establishing and keeping a **link** with the home (Cumine et al., 2010).

In the same way, the implementation of different **adaptation** strategies will be the responsibility of the class teacher, and examples of this would be special arrangements regarding examination and tests, for instance a reader, a scribe, the use of a word processor, extra time and other strategies, like the modification of examination papers, rest and sensory breaks, a separate examination room, the transcription of class notes, and the use of prompting (e.g. verbal or visual cues)

(Cumine et al., 2010; Safran, 2002). **Non-curricular adaptations** would be making the learner with AS aware of upcoming changes in routine, being aware of anxiety-provoking lunch breaks, assemblies and team sports, transitioning (e.g. from one term to another or one school to another), group work and oral presentations. In some instances, alternatives to these events could be offered (Cumine et al., 2010; Safran, 2002). A classroom teacher should be very attentive to behaviours that indicate that a learner is approaching a meltdown, and should have appropriate plans in place to delineate the event by a therapeutic time out, sparing the student the fear of being 'trapped' (Safran, 2002).

Lastly, Cumine et al. (2010) emphasise that it is very important to remember that the learner with AS is part of the whole school community, and therefore should be accepted and supported by the whole school community. It therefore is important to attend to what constitutes such a whole school environment, especially in an inclusive education context. This refers to the importance of taking all the system levels, as described by Bronfenbrenner (Bronfenbrenner, 1979, 1994; Bronfenbrenner & Evans, 2000), into account when including learners with AS into mainstream schools. In this discussion only, the 'tip of the iceberg' regarding inclusive practices has been covered. As seen in the literature, inclusion reaches far wider than just the classroom practices. None of these strategies will be successful if they are not underpinned by "core values and attitudes that include respect for (and celebration of) diversity, and reaching out to all learners, a philosophy of excellence for all, and the notion that 'inclusion' is a process rather than a state" (Humphrey et al., 2006, in Humphrey & Lewis, 2008).

3.4 CONCLUSION

This chapter has presented the characteristics of individuals with AS, as well as interventions for such individuals in general. Specific responsibilities, strategies and interventions that should be used by the classroom teacher to support a learner with AS were explored.

In the following chapter, the research methodology of the study and related topics will be expanded on.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The focus in this chapter is on the research design and methodology that form part of the research process, as described in Chapter 1. In addition, ethical considerations as well as data verification as it pertains to this research will be discussed.

The research design is a framework or "blueprint" (Babbie & Mouton, 2001, p. 74) of how the researcher intends to conduct the research, with the goal of finding answer(s) to the research question(s). Research methodology, on the other hand, refers to the methods, techniques and procedures used in the process (Babbie & Mouton, 2001).

The different combinations of methods and procedures (measurements, sampling, data collection and data analysis) employed in a research design attempt to gather data in order to answer different types of research problems or questions.

4.1.1 Research Question and Aim

It is necessary to revisit the research question as it was formulated in Chapter 1.

The following primary research question guided this research:

How ready are teachers in high schools in the Western Cape in South Africa to support and successfully include children diagnosed with AS?

Secondary questions that may shed light on the primary question are:

- What kind of knowledge do teachers have on AS?
- What kind of knowledge do teachers have of how to support learners with AS in their classes?
- How do teachers experience having children diagnosed with AS in their classes?

4.2 RESEARCH PARADIGM

According to Mertens (2005), a paradigm is a way of looking at the world, and it is the philosophical assumptions that underlie the paradigm that guide the thinking and actions within research. The paradigm used in this research is the interpretivist paradigm, which emphasises that "all human beings are engaged in the process of making sense of their (life) worlds. We continuously interpret, create, and give meaning to, define, justify and rationalize our actions" (Babbie & Mouton, 2001, p. 28). The basic assumptions within this framework are that knowledge is socially constructed by people participating in the research process, and researchers should attempt to understand their world from their viewpoint (Schwandt, in Mertens, 2005). Henning, Van Rensburg and Smith (2007) state further that research is fundamentally concerned with meaning and it intends to understand the participants' understanding of a situation; it seeks the deep, interpretive understanding of social phenomena. Babbie and Mouton (2001, p. 271) state that "the task of ... the qualitative methodologist, is to capture the process of interpretation".

Lincoln and Guba (2005, p. 22) pose three questions that help to define a paradigm: the **ontological** question, namely "What is the nature of reality?"; the **epistemological** question, which is "What is the nature of knowledge and relationship between the knower and the would-be-known?"; and lastly the **methodological** question, "How can the knower go about obtaining the desired knowledge and understanding?", in other words the way in which the researcher approaches the question of epistemology and attempts to bring the unknown of reality to the known.

Mertens (2005) states that **ontology**, or the nature of reality, in the interpretive paradigm is socially constructed. Therefore, "multiple mental constructions can be apprehended, which could be in conflict with each other, and perceptions of reality may change throughout the process of the research" (Mertens, 2005, p. 18). For example, the concept 'barriers to learning' and inclusive education are socially constructed concepts, and have different meanings to different people. Henning et al. (2007, p. 21) state that the interpretive paradigm "denies the existence of an objective reality independent of the frame of reference of the observer". Merriam (2009) states that no objective reality exists, but that there are multiple interpretations

of a single event, and thus by implication multiple realities. In this research, therefore, one gains an understanding of the teachers' realities and their readiness for inclusive education, and specifically the inclusion of learners with AS.

The implication for the **epistemological** dimension of the interpretive paradigm is that the process needs to take place where these multiple realities become accessible. Furthermore, Terre Blanche, Durrheim and Painter (2006) state that, because the researcher working from this paradigm believes that reality consists of the subjective experiences of the external world, an intersubjective or interactional epistemological stance towards the research should be taken. **Methodologies** like interviewing, document reviews and observation, which rely on the subjective relationship, and only through interaction, between the researcher and participants, lend themselves to be utilised in the interpretive constructivist paradigm (Mertens, 2005; Terre Blanche et al., 2006).

Babbie and Mouton (2001) emphasise that the qualitative researcher should become more than just a participant in the setting that is being investigated, but should try to put him/herself in the shoes of the people they are observing and try to understand their behaviour, decisions and practices from their point of view. They also state that the descriptions should be "thick descriptions" (Clifford Geertz, 1973, in Babbie & Mouton, 2001, p. 272), referring to a "rich, detailed description of specifics" (as opposed to summaries or standardised descriptions of quantitatively measured variables). I attempted to make sense of the participants' experiences by interacting with them and by paying close attention to exactly what they said.

4.3 RESEARCH METHODOLOGY

The research methodology of this research is qualitative in nature, and therefore has been placed within the interpretive framework. The focus is to gain insight into and understanding of the experience and interpretation of high school teachers regarding the inclusion of learners with AS in the regular classroom.

It therefore is important to define qualitative research at this time. Denzin and Lincoln (2005, p. 3-4) offer a "generic" definition of qualitative research:

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations including field notes, interviews, conversations, photographs, recordings and memos to self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers research things in their natural setting, attempt to make sense of, or interpret phenomena in terms of the meaning people bring to them.

Denzin and Lincoln (2005, p. 3) continue by explaining that different empirical materials (case research, personal experience, introspection, life story, interview, artefacts, cultural text and productions, observations, historical, interactional and visual text) are used to describe "problematic moments and meanings in individuals' lives", as well as "a wide range of interconnected interpretive practices, hoping always to get an understanding of the subject matter at hand" (Denzin & Lincoln, 2005, p. 3) They add that every practice highlights a different aspect of the world, and therefore often different interpretive practices are being used in any research.

Babbie and Mouton (2001, p. 270) explain more specifically that qualitative research is different from quantitative research in the following ways: research is employed in the participants' natural settings (in contrast to the artificial settings of experiments and surveys); the focus is on the process (over time and as events occur) instead of the outcome; the 'insider' perspective of the participants is emphasised (therefore attempting to view the world through the 'actors' eyes); the primary aim is 'thick', in-depth descriptions of insight into the events and actions (primarily interested in describing the actions of participants in detail and trying to understand them in terms of the actors' own beliefs, history and context); the importance is to understand "social action in the specific context" instead of generalising it to a population; the process is often inductive instead of deductive, and lastly, the "main instrument" in the research process is the researcher.

The present research has been conducted utilising a qualitative research methodology, within the interpretivist tradition, more specifically **basic interpretive research**. A **descriptive** and **exploratory** basic qualitative design (Babbie & Mouton, 2001; Merriam, 2009) was implemented. Interpretive researchers are concerned with meaning and the subjective understanding and experiences of individuals and groups, and also aim to explain the subjective reasons and meanings

that lie behind social action. The central aim of interpretive research is adding to knowledge that already exists, and therefore increasing our understanding (Terre Blanche et al., 2006, p. 7).

Social research serves many purposes and it is possible to distinguish between exploratory studies, descriptive studies and explanatory studies (Babbie & Mouton 2001, Terre Blanche et al., 2006). Babbie and Mouton (2001, p. 79) state that any given research can have more than one of these purposes. In order to get an initial rough understanding of a phenomenon, and when a new interest or subject of research is examined, the approach is typically **exploratory**. The approach is open, flexible and inductive in the attempt to get new speculative insight, new questions, and hypotheses (Terre Blanche et al., 2006, p. 44). In addition, Babbie and Mouton (2001, p. 80) explain that **exploratory** studies are in general done for the following reasons: firstly, for better understanding; secondly, to test the possibility of more extensive research; thirdly, the development of methods to be used in later studies of the same topic; fourthly, to clarify the central concepts and constructs of the research; fifthly, to establish priorities for potential research; and lastly, to develop a new hypothesis about an active phenomenon.

However, **descriptive** studies have the goal in mind to describe the phenomena and what the researcher has observed accurately through narrative types of descriptions, classification or measured relationships (Babbie & Mouton, 2001, p. 80; Terre Blanche et al., 2006, p. 44). "Descriptive studies seek accurate observations, and the research design should focus in validity (accuracy) and reliability (consistency) of the observations, and the representativeness of sampling" (Terre Blanche et al., 2006, p. 45).

This research can therefore be classified as descriptive and exploratory, because the aim is to explore, identify, describe and understand teachers' readiness to include learners with AS in mainstream schools.

4.4 RESEARCH DESIGN

A research design is "a flexible set of guidelines that connect the theoretical paradigm to the strategies of inquiry and to methods for collecting empirical material" (Denzin & Lincoln, 2005 p. 25). Babbie and Mouton (2001, p. 74) emphasise the fact that research design and research methodology are sometimes confused. To explain the difference between the two constructs, they use the analogy of building a house. The research design is compared to the "blueprint" or plan of the house, and will change a few times before it reaches perfection. The design will then form the point of departure for the "systematic, methodical, and accurate execution of the design" (Babbie & Mouton, 2001, p. 75).

Different research designs attempt to answer different types of research questions and problems, and therefore different methods, strategies and procedures are used to do this in the most effective way (LeCompte & Preissle, 1993, in Denzin & Lincoln, 2005). Furthermore, "A research design situates the researcher in the empirical world and connects him or her to specific sites, persons, groups, institutions, and bodies of relevant material. A research design also specifies how the investigator will address the two critical issues of representation and legitimation" (Denzin & Lincoln, 2005, p. 25). A basic qualitative design served the purpose of constructing meaning with the participants on their interpretations of experiences as teachers, their views of their worlds and the meanings they attribute to their experiences (Merriam, 2002).

According to Terre Blanche et al. (2006, p. 37), four important "principles of research design", namely the purpose of the research, the theoretical paradigm, the context and the techniques used to collect and analyse the data, need to be borne in mind.

4.4.1 Context of the Research

Babbie and Mouton (2001) acknowledge the importance of understanding events, actions and processes in their context. They state: "if one understands events against the background of the whole context and how such a context confers meaning to the events concerned, that one can truly claim to 'understand' the events" (Babbie & Mouton, 2001, p. 272).

The current study was undertaken in two state high schools and one private high school in the Western Cape Province, one of the nine provinces of South Africa. The participants were all teachers from advantaged backgrounds and old Model C schools. Their training, years of experience, qualifications, subjects they teach and exposure to learners with AS, as well as exposure to training, are presented in Table 1.

4.5 RESEARCH METHODS

4.5.1 Sampling and Selection of Participants

Terre Blanche et al., (2006, p. 49) describe a sample as a selection of participants for a research study, gained from an entire population and therefore determining which people, settings, events, behaviour or social processes are to be observed. A population can include individual human beings, collectives, organisations, social activities or events, interventions, or cultural objects. A sample is systematically and strategically identified for specific research. The population for this research was a group of high school teachers from the Western Cape. Babbie and Mouton (2001, p. 310) state that two types of sampling are usually found in interpretive designs; firstly, where the sample is set up by the researcher before fieldwork is done and, secondly, where the criteria for sampling emerge during the fieldwork. Durrheim (in Terre Blanche et al., 2006, pp. 49-50) states that qualitative research typically does not draw large or random samples, as is the case in quantitative research; "rather than insisting that samples should be representative, qualitative researchers ensure that their findings are transferable - i.e. they help to understand other contexts or groups similar to those studied".

Different kinds of sampling are described in the literature, for instance convenience sampling, random sampling, purposive sampling, maximum variation sampling, snowball sampling, critical case sampling, confirming and disconfirming cases, theoretical sampling and sampling to redundancy (Terre Blanche et al. 2006; Henning et al., 2007). At this point only the sampling used in this research will be discussed, namely purposive and convenience sampling.

Convenience sampling consists of a process in which the selection of participants occurs without any prior rationale and is done because participants are readily available; they are non-representative of the population, and therefore findings cannot be generalised (Mertens, 2005; Patton, 2002; Terre Blanche et al., 2006). Purposive sampling, which is similar to theoretical sampling, happens when cases are good examples of a phenomenon and are therefore selected for theoretical reasons. The criteria for the participants usually come from the researcher's knowledge of the topic, as well as how the theory develops during the research (Henning et al., 2007 p. 71; Terre Blanche et al., 2006).

For this study, schools in reachable geographical regions were selected because of practical considerations. Principals were contacted by e-mail, the research was explained to them, and permission to do the research in their school was obtained, based on their willingness and the experience of the school with learners with AS. Therefore, convenience criteria as well as criteria concerning the schools' experience with learners diagnosed with AS were taken into consideration when selecting the participants. In order to ensure that the participants could bring their understanding of appropriate experiences with learners with AS, the participants who complied with the following criteria were chosen: firstly, the data had to come from teachers who had experience with a learner with AS or who currently had a learner with AS in their class. Secondly, the potential participants were selected purposefully on the basis of convenience, in the sense that they were all working within reaching distance of the researcher and of one another. Thirdly, the teachers had to volunteer to take part in the research, after they have been informed about the process and what it would demand of them.

Fourteen teachers from three different schools volunteered to take part in the research. Although all fourteen signed a commitment to take part, only eleven completed the process. Brief outlines of their demographic information are included in Table 1 below. The participants taught at two state schools and one independent school. Both state schools offered Afrikaans and English tuition, with Afrikaans as the dominant language in the one and English the dominant language in the other. The third school was an independent school with English as the major language of learning and teaching.

Table 1: Demographic information of participants

PARTICIPANTS IN THE PRESENT RESEARCH							
PARTICIPANT	SEX	TEACHING EXPERIENCE	QUALIFICATIONS	SUBJECT TEACHING	EXPOSURE TO AS LEARNERS	IE PRE-SERVICE TRAINING	IE IN-SERVICE TRAINING
P1	M	20,5 years	BA Hons, HED, MA	Librarian	1 learner	None	Information session
P3	F	7 years	BA, HED	Life Orientation, Economics and Management Sciences	1 learner	None	Staff development talks
P3	F	5 years	B Soc Sc, NEC	Afrikaans	1 learner	University IE in general	Information session
P9	F	30 years	BA HDipEd (PG) FDE	English, History	1 learner	None	1 info doc
P7	F	2 years	BA, PGCE	History, English, Life Orientation	1 learner	1 Module: overview	Staff development talk
P2	M	10 years	BSc Hons (Psyc), NEC/HED	Counselling/Life Orientation	3 learners	HED module	2 Workshops (WCED)
P1	M	2 years	BSc Hons Biodiversity and Ecology	Life Science	1 learner	HED	None
P5	F	5 years	BSc Gesondheid en Bestralingsfisika, NEC, Kinesiology	Mathematics	1 learner	NEC module	None
P8	F	9 years	BA (Law), NEC, BA Hons (Linguistics)	English	1 learner	NEC module	None
P10	F	28 years	BA HDE (PG)	English	1 learner	None	None
P11	F	16 years	BA (Fine Art) Ed, BA Hons (Psych)	Art	1 learner	Hons module	Ongoing for 11 years

4.5.2 Methods of Collection and Analysis

The methods used to collect data during the research process need to be compatible with the research paradigm and interpretive methodology. Unstructured observation, open interviewing, idiographic descriptions and qualitative data analysis are all ways in which to capture "insider knowledge" (Henning et al., 2007, p. 20). As outlined in Chapter 1, the following methods were used during the research process: open question questionnaires with written responses (also called reflective questions), semi-structured interviews with one teacher, and two focus groups with three and six teachers respectively. The remainder of this section will be used to discuss the procedures used in accessing the research participants and will offer an audit trail of the process and a discussion of the specific methods of data collection and analysis.

4.5.2.1 Procedures

Permission to conduct the research in the schools, which are part of the Western Cape Education Department (WCED), was requested from and granted by the Director of Research Services at the WCED, Dr A T Wyngaard (see Addendum B). The school principals were contacted by the researcher via e-mail, describing the envisioned research (see Addendum C). After the principal gave consent to me to ask for volunteers in his/her school to participate in the research, the staff who fulfilled the criteria of previously or currently teaching a learner with a diagnosis of AS were approached via e-mail, and tentative commitments were made by them. Convenient meeting times were set up with the group of volunteers at each of the respective schools. At that meeting the participants were met for the first time, the letter of consent was discussed and signed, and the questionnaires with the open questions were distributed to the participants. The participants were requested to return the completed documents within two weeks, and they were also asked to use only their current knowledge to answer the questions and not to do any research prior to answering the questions.

4.5.2.2 Data collection

The following methods were used to generate data in the research: reflective questions, semi-structured interviews and focus groups.

4.5.2.2.1 Reflective questionnaires

Prior to the interview, the research questions of this research were used to compile an 'open reflective questionnaire' as a tool to collect data from the participants and to gain insight into their way of seeing the world (Addendum D). Open questions refer to questions that cannot be answered by one word only, i.e. yes/no answers. The goal of these open questions was to generate preliminary themes regarding the teachers' readiness for inclusive education in general, and specifically their knowledge about AS and the inclusion of learners with AS in their classes. The information gained was used to formulate additional questions for the interview guide for the semi-structured interviews and focus groups, and therefore added to the rendering of the 'rich descriptions' needed. This provided the researcher with some insight into the meaning making of the teachers regarding AS and the support needed in a general classroom.

4.5.2.2.2 Semi-structured or unstructured interviews

The basic or individual interview is one of the methods used most frequently to gather data in the qualitative approach (Denzin & Lincoln, 2005). It differs from any other type of interview, since it is an open interview and allows the participants to speak for themselves, instead of answering predetermined hypothesis-based questions (Babbie & Mouton, 2001, p. 289).

A qualitative interview, according to Terre Blanche et al. (2006 p. 297), is a more natural form of interacting, which makes it a good fit for the interpretive approach to research used here. It is a form of interaction between the interviewer and the respondent and, at one level, in essence a conversation, but at the same time it is also a "highly skilled performance" (Terre Blanche et al., 2006 p. 297). Although the interviewer has a general plan of inquiry, it is not a specific set of questions that must be asked in particular words in a particular order (Babbie & Mouton, 2001, p. 289). Semi-structured interviews make use of key themes for the interview and are formulated as key questions. If the researcher has a particular topic to focus on and wants to gain specific information from individuals, the semi-structured interview seems to be most appropriate (Hesse-Biber & Leavy, 2006).

Babbie and Mouton (2006) warn, however, that the researcher should not try to be interesting during interviewing, because that will be counterproductive to the research process. Rather, the researcher needs to make the participant seem "interesting, by being interested" (Babbie & Mouton, 2001, p. 289). John and Lyn Lofland (in Babbie & Mouton, 2001, p. 290) suggest that an investigator should adopt the role of a "socially acceptable incompetent" when interviewing and therefore act as if he/she does not understand the absolute basics in order to get the most basic aspects of the situation. Gibson and Brown (2009) state that researchers are more flexible when conducting interview schedules during semi-structured interviews.

4.5.2.2.3 Focus groups

Focus group is a general term given to a research interview, but in this instance it is conducted with a group. Typically, a focus group will constitute a group of people who are sharing similar experiences, but it is not necessarily a 'naturally' existing social group. Focus groups are often purposive in the sense that a group of participants is selected because of their knowledge of a specific field, so that a wide range of perspectives can be obtained on the specific topic. Focus groups are often selected "to reflect a heterogeneous cross-section of interests and attitudes within the parameters of whatever main criterion qualifies them for membership" (Kelly, in Terre Blanche et al., 2006).

The advantage of focus groups is, first of all, the opportunity they give the researcher to get the intersubjective experience of a group of people. The researcher also gets the opportunity to gain understanding of the differences between people who previously might have seemed homogeneous (Kelly, in Terre Blanche et al., 2006, p. 304).

For the implementation of my interviews, tentative questions were formulated. These were based on themes that were identified during the preliminary data analysis of the participants' answers to the open reflective questions, which were initially asked of them. A number of probes and questions were used during the interview (see Addendum E). The interviews were audio-recorded, and therefore gave the researcher the opportunity to observe non-verbal cues as well as the dynamics between the members. "We see people, and through seeing we can understand the

body's movement and the ways the bodies interact in the social world" (Kelly, in Terre Blanche et al., 2006, p. ??). The audio-recordings were transcribed after the interviews.

Two focus group interviews and one individual interview were conducted, using the same interview schedule. The motivation for this arrangement was based on convenience, taking the travelling distance between the different schools into consideration, as well as the travelling time involved.

4.5.2.3 Data analysis

Braun and Clarke (2006, pp. 87-93) describe a method for identifying, analysing and reporting patterns within data, which they named "thematic analysis". According to them, thematic analysis should be seen as a foundational method for qualitative research, and it should be seen as a method in its own right. "Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data in (rich) detail" (Braun & Clarke, 2006, p. 79). I have adopted this procedure in this study as a way of organising and describing the data sets in 'rich' detail. At this time I will describe the different phases of the process as set forth by these authors:

Phase 1: During this phase I familiarised myself with the data. Braun and Clarke (2006) state that it is preferable for the researcher to transcribe oral material him/herself, because in this way he or she will develop a more thorough understanding of the data. In this phase it is vital to be immersed in the data in such a way that you become familiar with the depth and breadth of the content. This involves rereading the data in an "active way" while searching for meanings, patterns and themes. The ideal at this time is to read through the whole data set at least once before beginning with the coding process. Even though it might be tempting to skip this process, since it is time-consuming, this is advised against, because it forms the foundation for the analysis. It is also advisable to make notes of the initial list of ideas of what is in the data, as well as interesting aspects of the data.

Phase 2: During this phase I started generating initial codes. According to Braun and Clarke (2006), this phase involves the production of initial codes, which can be seen as the most basic elements of the raw data. It is the coding of interesting features of

the data, across the entire data set, in a systematic fashion, into meaningful groups, collating data to each set. Braun and Clarke (2006) emphasise that coded data differs from 'units of analyses' in the sense that it is not as broad. I followed Braun and Clarke (2006)'s advice by coding for as many potential themes as possible. I tried to keep some of the surrounding data so that the context stayed apparent. I then coded individual extracts of data into as many themes possible.

Phase 3: Searching for themes was the main activity during phase three. This phase already started earlier, when long lists of the different codes across the data set were identified. At that stage the analysis was broadened, and the different codes were collated into the potential themes, and all data relevant to each theme was gathered. "Essentially you are starting to analyse your codes and consider how different codes may combine to form an overarching theme" (Braun & Clarke, 2006, p. 89). The authors also suggest that one should use visual representation, like tables or mind-maps, to organise the themes. This offers an opportunity to consider the different levels of themes and subthemes. As miscellaneous themes could even be created, nothing should be abandoned, not at any stage.

Phase 4: Reviewing the themes forms part of phase 4. Braun and Clarke (2006, p. 91) state that this phase starts when a set of candidate themes has been devised, and they identify two levels of refining those themes. Level one involves reviewing at the level of the coded data extracts for each theme, by reading them and evaluating whether they form a coherent pattern. If a data extract does not fit, one would rework the theme, create a new theme, add it to an existing theme or discard it. Level two involves considering the trustworthiness of individual themes in relation to the whole data set. It is important to evaluate whether the "candidate thematic map accurately reflects the meanings evident in the data set as a whole" (Braun & Clarke, 2006, p. 91).

Phase 5: Defining and naming themes form part of phase 5, which starts when there is a suitable thematic map for the data. At this point the essence of each theme needs to be captured and should be 'defined and refined'. This is done by "going back to the collated data extracts for each theme, and organizing them into coherent and internally consistent account, with accompanied narrative" (Braun & Clarke, 2006, p. 92). For each theme, a detailed analysis needs to be written, as well as the

'story' that each theme tells and how it fits in with the broader 'overall story' of the data, as it relates to the research question/s. Braun and Clarke (2006, p. 92) state that, at the end of this phase one needs to be able to illustrate unmistakably what the themes are or not. The themes identified in the data generated in this study are presented in Chapter 5. It is at this point that tentative names need to be given to the themes for the final analysis, names that will immediately give the reader an idea of what the themes are – names that are 'concise and punchy'.

Phase 6: Phase six starts as soon as there is a distinct set of themes, and it involves the final analysis and writing of the report. The goal is to "tell the complicated story of your data in a way which convinces the reader of the merit and validity of your analysis (Braun & Clarke, 2006, p. 93). This write-up needs to be a to-the-point, consistent, rational, non-repetitive version of the data story, "within and across the themes" (Braun & Clarke, 2006, p. 93). In this way, the trustworthiness of the study can be enhanced and presented to the reader. As Lincoln & Guba proclaimed: "The basic issue of trustworthiness is simple: How can an inquirer persuade his or her audiences (including him or herself) that the findings of an inquiry is worth paying attention to ...?" (Babbie & Mouton, 2001, p276)

4.6 DATA VERIFICATION

In order to ensure the quality of the research project by attending to the trustworthiness of it, it is important to use strategies that will enhance the credibility of the findings, which will in turn make transferability possible. Dependability and confirmability are again dependent on the credibility of the research process (Babbie & Mouton, 2001).

4.6.1 Credibility

Guba and Lincoln (1989, in Mertens, 2005, p. 254) compare credibility as the criterion in qualitative research that is parallel to internal validity in post-positivist research. Babbie and Mouton (2010, p. 277) ask the question: "Does it ring true?" Mertens (2005, p. 254) states that, in qualitative research credibility refers to the correlation between the way the participants make sense of social constructs and the way in which the researcher portrays their viewpoints. A number of research

strategies can be used to enhance credibility, and a researcher should try to incorporate as many 'procedures' as possible. I have implemented the following strategies to promote credibility (Babbie& Mouton, 2010, pp. 277-278; Mertens, 2005, p. 254; Shenton, 2004, pp. 64-69):

4.6.1.1 Triangulation

Triangulation is the eliciting and checking of information that has been collected with different methods, sources, events, relationships and different point of views, for consistency of evidence across sources of data (Babbie & Mouton, 2001, p. 277; Mertens, 2005, p. 255). According to Terre Blanche et al. (2006), a clearer understanding of the phenomenon can be provided, because it has been inspected from different angles by using multiple methods to obtain data. Triangulation has been applied to this research by making use of three methods for data collection, namely open question documents/reflective questions, individual interviews and focus group interviews. In the same way, different participants from different schools were used, which thus allowed the researcher to triangulate data from a variety of sources.

4.6.1.2 Audit trail

This refers to the detailed account of the methods and procedures used, insights gained and decisions made in the research. Some researchers choose to 'meticulously' keep track of the data gathering and analysis process, while others prefer to keep a journal or diary of the research process (Terre Blanche et al., 2006, p. 376). According to Terre Blanche et al. (2006, p. 377), the trail should be such that the reader would be able to replicate the research method, and "should have a sense of the interpretive lenses that have been applied to the analysis of the field". This chapter, as well as Chapter 5, describes the research process and analysis of data in detail, and therefore acts as the audit trail for this research. The data that are presented in tables and in narrative descriptions, as well as the addenda attached to this research report, demonstrate the important processes implemented.

4.6.1.3 Peer examination

Extended discussions with a peer regarding the findings, analysis, conclusions and hypotheses should be held in which the peer ask questions that will confront the researcher's values (Mertens, 2005). This should be done, according to Babbie and Mouton (2010, p. 277), with a colleague of similar status who is outside the context of the research, but has a "general understanding of the nature of the research". The peer takes in the position of "devil's advocate" as the researcher shares insights, perceptions and analyses. A regular meeting with the supervisor of this research fulfils this function. Discussions with colleagues regarding the research process and the emerging themes in the raw data, and the cross-referencing of perceptions and insights, were used to promote trustworthiness.

4.6.1.4 Reflexivity

Since the researcher is the central figure in the research process, the researcher needs to reflect on his or her own beliefs and assumptions, and reflect on how his or her own belief systems will influence the research findings (Denzin & Lincoln, 2005, pp. 22-26). The researcher needs to document this process of change, from the beginning of the research until the end. This can be discussed with the 'peer debriefer' so that the researcher can be challenged if he or she is not open minded to the process, but only found what was expected from the beginning (Mertens, 2005, p. 255).

At this stage I would like to declare my background as a researcher in this study. I previously worked in South Africa as a remedial teacher, in a mainstream school, in private practice, in a special school, as well as in higher education. Prior to registration for the programme MEdPsych, I worked as a student support teacher/special education teacher in a functional IE system in Canada. I have thus been exposed to a functional IE system, on a micro- as well as macrosystem level. This could have positioned me in a specific approach to the research questions in this study. It could have had a negative or a positive effect on my interpretations of the findings. Member checks and ongoing reflective conversations with a supervisor were employed to counter the possibility of bias during the process of analysis.

4.6.1.5 *Rich, thick descriptions*

A thick description refers to a lengthy description that "captures the sense of actions as they occur ... it places events in context that are understandable to the actors themselves" (Babbie & Mouton, 2001, p. 272). The actions of the participants therefore need to be described in great detail, and the researchers should try to understand these actions in terms of the participants' own beliefs, history and context. The researcher should also try to use categories and concepts used by the participants themselves and therefore stay true to the actors. The readers therefore will be able to determine to what extent their situations match the context, and therefore the transferability of the findings, of the research (Merriam, 2002, p. 31). These rich descriptions can be found in Chapters 3 and 4 of this research report.

4.6.1.6 *Member checks*

Mertens (2005, p. 255) states that this criterion is the most important in establishing credibility. This is the process whereby the researcher verifies the construct with the participants as it develops as a result of collecting and analysing data. The researcher can summarise what has been said at the end of the interview, or a draft of the research report can be shared with the respondent to check whether it accurately reflects that person's position. Babbie and Mouton (2001) suggest that the transcripts can be returned to the participants to confirm whether they are a true reflection of what was said. The data and the interpretation thereof should be checked. The aim is "to check the intentionality of participants, to correct obvious errors, and to provide an opportunity for additional volunteer information" (Babbie & Mouton, 2001, p. 227). Transcripts of the interviews were given to the participants to validate the information generated during the individual interviews and focus group interviews.

4.6.1.7 *Adequate engagement in data collection*

According to Mertens (2005, p. 254) there are no specific rules that specify how long the researcher must stay in the research process. When the themes and examples are repeated, it is usually an indication that enough information has been obtained and the data becomes saturated. In this research, interviews were continued until the

same themes were repeated. In the same way, analysis was done until no new themes emerged.

4.6.1.8 Referential adequacy

Babbie and Mouton (2010) mention that materials that can provide good records are audio- and video-taping, but they caution that this could be intrusive. All the interviews, individual as well as focus groups, were audio-recorded. The answers to the initial reflective open questions also served as a record for the data obtained for the research (Addendum D).

4.6.2 Dependability

The audience of an inquiry needs evidence that, if research is repeated with the same or similar participants in the same context, the results will be similar. According to Guba and Lincoln (in Babbie & Mouton, 2001, p. 278) there can be no credibility without dependability, and a "demonstration of the former is sufficient to establish the existence of the latter", and therefore if the researcher can use the techniques outlined in the 'credibility' section above (4.6.1). The dependability does not need to be demonstrated separately. Merriam (2002) deems an audit trail and transparency of method as very important strategies to enhance reliability or dependability.

4.6.3 Transferability

Transferability is the qualitative parallel to external validity in quantitative research, which means the degree to which results can be generalised to other situations. In qualitative research the readers are the judge of this, and it is the responsibility of the researcher to provide enough detail about the exact time, place, context and culture. This is called providing "thick descriptions" (Babbie & Mouton, 2001, p. 277; Mertens, 2005, p. 257). Another strategy that can be used is purposive sampling, in which locations and participants are purposely selected to differ from one another (Babbie & Mouton, 2001).

4.6.4 Confirmability

"This is the degree to which the findings are the products of the focus of the inquiry and not the biases of the researcher" (Babbie & Mouton, 2001, p. 278). Lincoln and

Guba (1985, in Babbie & Mouton, 2001, p. 278) suggest a "confirmability audit trail" in which a trail should be left to enable the auditor to "determine if the conclusions, interpretations, and recommendations can be traced to their sources and if they are supported by the inquiry".

4.7 ETHICAL CONSIDERATIONS

"The scientist has the right to search for the truth but not at the expense of the rights of other individuals in the society" (Babbie & Mouton, 2001, p. 520). Any research needs to be guided by general agreed upon ethical guidelines. Social research is usually guided by the following four widely accepted basic ethical principles: beneficence, respect (and autonomy) and justice, identified by the Commission for the Protection of Human Subjects in Biomedical and Behavioural Research in 1978 (Mertens, 2005, p. 33), and the principle of non-maleficence.

The principle of beneficence obliges the researcher to maximise the good for science, humanity and the individual research participants, as well as avoid unnecessary harm, risk or wrong (non-maleficence). The Ethics Committee of the Stellenbosch University has determined that this research study holds low risk for the participants (see addendum A).

Autonomy and respect for the dignity of persons are clearly linked to the Nuremberg Code and are expressed by voluntary informed consent by all participants (see addendum F), as well as the protection of individual and institutional confidentiality and anonymity. This principle involves treating all, including those who are not autonomous, with respect and courtesy. Confidentiality is underscored by this principle and also rests on the participants' right to privacy, and means that the person and/or organisation's identity needs to be protected.

The principle of justice refers to making sure that those participants who bear the risk in the research are those who benefit from it, and also ensuring that the procedures used are reasonable, non-exploitive, carefully considered and fairly administered.

Because ethical issues in social research are very vital, they can also be ambiguous; therefore most professional associations have formulated and published formal codes of conduct, and outlined what acceptable professional behaviour is. The

Health Professions Council of South Africa (HPCSA, 2007) has Ethical Rules of Conduct for practitioners registered under the Health Professions Act (1974) and conducting research and being involved with the publication thereof. Regulation 86 states that a psychologist needs to plan and conduct research in a manner consistent with the law and with internationally acceptable standards, and in particular those standards pertaining to human participants and animal subjects (Department of Health, 2006, pp. 41-42).

Regulation 87 further states that a psychologist needs to (a) get written approval from the institution or organisation prior to conducting the research (see Addendum B), (b) provide the host institution or organisation with accurate information about the research proposal, and (c) conduct the research in accordance with the research protocol approved by the institution or organisation concerned (see Addendum A in this regard).

Permission was granted to conduct the research, after ethical clearance had been obtained from the Research Ethics Committee of Stellenbosch University (Addendum A). Part of this ethical clearance for the research was getting approval to conduct the research in schools of the Western Cape Educational Department (WCED) (Addendum B). The principals of the individual schools were contacted to obtain permission (see Addendum C), after which each participant was approached regarding voluntary participation (Addendum F).

Furthermore, the HPCSA (Regulation 88) states that, prior to conducting the research, the researcher needs to enter into an agreement with every participant that sets out the nature of the research as well as the responsibility of each partner. Informed consent (Regulation 89) needs to be obtained from each participant. The Department of Health (2006, p. 42) provides eight principles that need to be taken into consideration when informed consent is obtained. These can be summarised as giving the participants appropriate information about their involvement and the gist of the research, making sure that the participants are legally competent to participate and understand the consequences of being part of the research, discussing the fact that participation is voluntary and they may withdraw at any stage after the research has started, and the fact that the consent is usually in written form. These aspects

were present in the informed consent form which was presented to and signed by all the participants in this research.

4.8 CONCLUSION

The focus of this chapter was a discussion of the research design and methodology that formed part of the research process. Ethical considerations as well as data verification as it pertains to this research were also discussed.

The following chapter presents the findings that emanated from the data. The findings regarding teachers' readiness to include learners diagnosed with AS, and their readiness for inclusive education in general, will be discussed.

CHAPTER 5

PRESENTATION OF FINDINGS AND DISCUSSION

5.1 INTRODUCTION

This study focused on the readiness of high school teachers in the Western Cape to include students diagnosed with Asperger's syndrome (AS) in the mainstream education system. The aim was to describe what exactly readiness entails in terms of the execution of the principles underlying inclusive education in general and, more specifically, the readiness to include and support learners diagnosed with AS.

The primary question that guided the research was: How ready are teachers in high schools in the Western Cape in South Africa to support and successfully include children diagnosed with AS? Through the secondary questions I hoped to shed light on the primary question by finding out what kind of knowledge teachers have of **AS**, of how to **support** learners with AS in their classes, and their experience of having children diagnosed with AS in their classes.

As discussed in the literature review, readiness implies not only a change in the individual teacher and school system (microsystem and mesosystem), but also a change in the education system (exosystem) and social system (macrosystem) as a whole. As indicated from the ecological or systems change perspective of Bronfenbrenner, the influences, interactions and interrelationships between the individual teacher and the multiple other systems are complex, and any change in one part of the system (e.g. the Department of Education) will directly influence change in other parts of the system, including, in this case, the individual teacher.

I shall first of all present the findings that emanated from the data in a schematic format in order to orientate the reader (Figure 6). Thereafter, with the above-mentioned model as a framework, I shall describe and discuss the findings regarding teachers' readiness to include a learner diagnosed with AS in their classes and, by implication, their readiness for inclusive education in general.

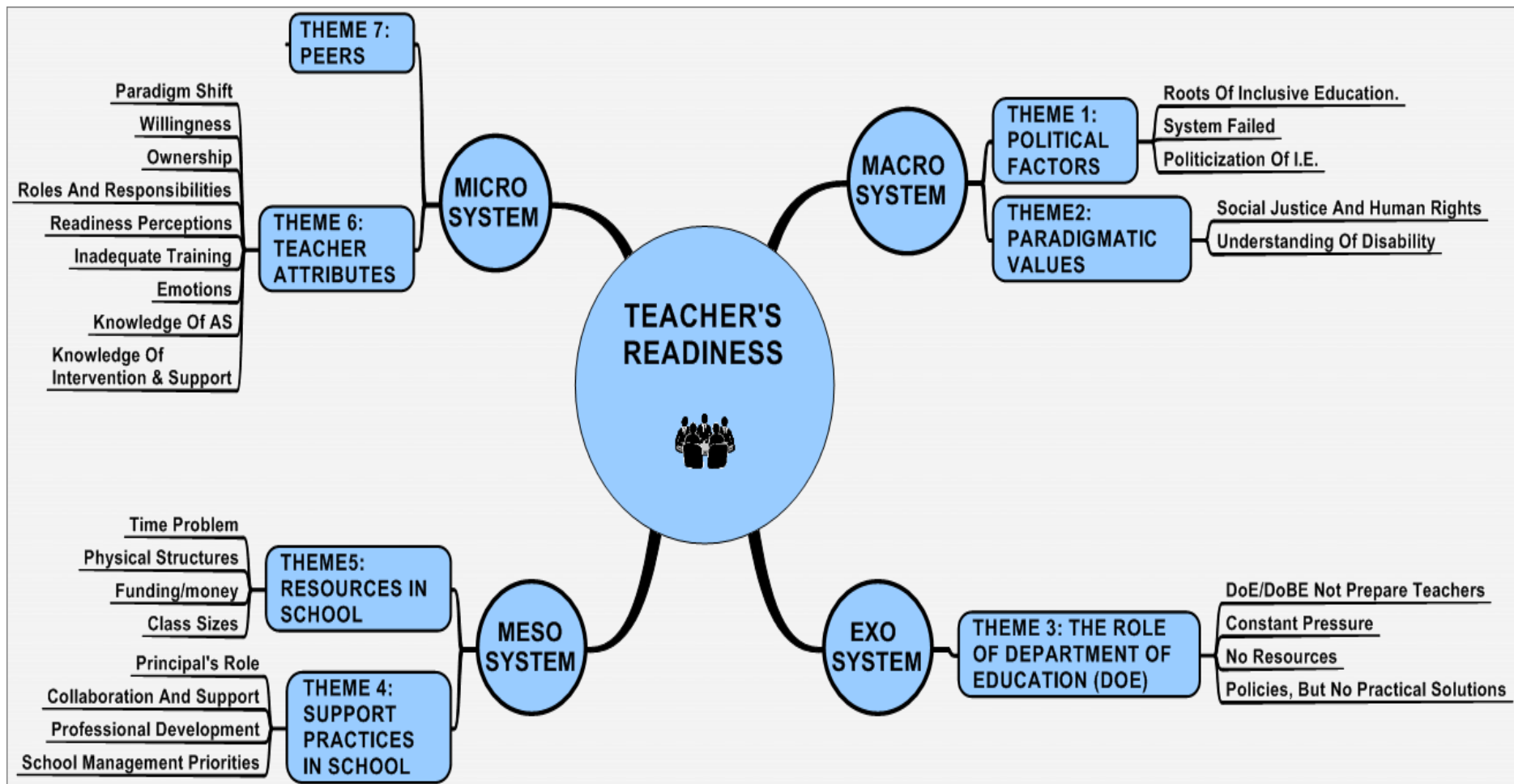


Figure 6: Representation of the findings in terms of a theoretical framework of a bioecological approach

In order to understand the above findings in terms of the theoretical framework of a bioecological approach, I shall present them under headings that refer to the micro-, meso-, exo- and macrosystems. Thereafter I shall endeavour to explain my understanding of the various reciprocal influences on teachers' readiness for including children with AS.

5.2 MACROSYSTEMIC INFLUENCES ON THE READINESS OF TEACHERS, ACCORDING TO THE PARTICIPANTS, TO INCLUDE LEARNERS DIAGNOSED WITH AS

The themes that emerged from the data referring to macrosystemic influences on the phenomenon studied are political factors, cultural values, systemic failure and the lack of readiness among other learners. Two of these themes had three subthemes each, which I shall describe respectively.

5.2.1 Political Factors

The three subthemes that constitute the theme of **political factors** are the roots of inclusive education (IE), one-sided change and the failing of the system.

5.2.1.1 The roots of inclusive education

The majority of participants indicated that they perceived inclusive education as a political endeavour of the newly elected government to "*save money and to force down equality*" (Participant 7). There seems to have been a perception among the participants that inclusive education in general has its roots in political discourse. There was consensus between the participants from all three schools that inclusive education was an invention of the newly elected government.

*"there wasn't enough money to pay for special needs places where these children could get the best help and the most help, so therefore they said you know all **government** schools must take everybody."* (Participant 7)

*"... the **constitution** says that we are not allowed to discriminate so discrimination would mean discriminating against someone who has been told that they're unable to function in the main stream ..."* (Participant 11)

Most participants believed that there was a direct relationship between the 1994 elections and inclusive education. Most of them had not heard of the Salamanca agreement and the international movement towards inclusivity.

"... after the election, they had to, pretty much restart from scratch."
(Participant 7)

"Well, playing around with having different education systems, um, discriminated against different children and so – black, white, coloured discrimination – and so now they're trying to get rid of any of that kind of discrimination at all and in the process they can't discriminate against blind and deaf and learning disabled and physically disabled and Asperger's or whatever it would be." (Participant 11)

It became clear that the perceived causal link between the 1994 elections, in other words, the change that transpired in the political arena in SA, and the implications it had for the education system is not perceived as positive. Participant 7 stated:

"... after the elections it was just ridiculous and everything was falling apart in terms of the majority of schools, ..." (Participant 7)

"Well, the 1994 elections was the spark that changed every type of way of thinking of most South Africans so that included being in inclusive schools ..." (Participant 4)

5.2.1.2 The system failed

Most of the participants voiced the expression that the **"system has failed"**:

"But I think where the government and the system is failing learners with barriers is that they're not getting the systems needed." (Participant 7)

"... they really struggled here - they were the tail, uh got involved in drugs, um, the reasons that they left xxxxxx – to play sport and things like that ... It didn't materialise and so ... I don't believe that we actually did them justice. I think we failed them ..." (Participant 11)

"The system failed them. And, because I am part of the system, I felt like I failed them too ..." (Participant 4)

Participant 11 felt that the dismantling of special schools as they were before the election had been a mistake:

"... And then, slowly, but surely, uh, I can't remember when it was, probably '98, '99, 2000, when all the schools started closing – the industrial schools started closing - we landed up getting a lot of conduct disordered kids and children with behavioural problems, as opposed to learning problems and the kids with the learning problems fell apart– or they landed up having a whole lot of behavioural issues, as opposed to the learning problems coming in and so there are not too many places where kids with learning problems can get put." (Participant 11)

5.2.1.3 "Politicisation" of IE

"Ek dink die probleem is juis onder andere dat baie van die terme totaal in Suid-Afrika verpolitiseer is. So ons interpreteer dit baie eng en dan verloor 'n mens 'n groot deel van die betekenis en dan die waarde van daai werk. So, in 'n sekere sin, inklusiwiteit, as dit kom by leergestremdhede byvoorbeeld, verloor ons 'n deel daarvan, omdat dit alles so politiseerd is ..." / I think that the problem is among others that many of the terms have been totally politicised in South Africa. So we interpret it very narrowly and then a person loses much of the meaning and then also the value of that work. So, in a sense, inclusivity, when it comes to learning disabilities for instance, we lose a part of it, because everything is so politicised ..." (Participant 2)

Naicker (2006, p. 2) confirms this point by stating, "ten years after democracy the claim be made here is that South African policy related to inclusion and access to a single Revised National Curriculum Statement stop short of a pedagogic revolution and is stuck at a political level since it ignored epistemological issues in the training of educationists". He continues by saying that, in South Africa, it is common knowledge that bureaucrats and public service government officials do not examine "knowledge itself, its origins and nature", and that the "majority of personnel who join the government departments are not employed to train" (Naicker 2006, p. 2).

According to him, the conceptualisation, production of knowledge, training and orientation, monitoring and evaluation concerning IE and the Revised National Curriculum Statement (Department of Education, 2003) were left to the bureaucrats. It therefore has been difficult to train and orientate others if one does not understand "epistemological issues and how they impact thinking, practices and transformation in general" (Naicker, 2006, p. 2). He concludes that the "insecurity concerning training", as well as the lack of knowledge, have led to "routine and control, instead of being open, reflective, and critical and create new meaning" (Naicker, 2006, p. 2).

The above-mentioned three subthemes were grouped together to constitute the theme political factors. From 7 to 10 June 1994, the government of Spain, in co-operation with UNESCO, held a conference in Salamanca, and the Salamanca Statement of Principles, Policy and Practice in Special Needs Education and a Framework (UNESCO, 1994) was adopted by different international representatives. Senior education officials, administrators, policy makers and specialists, as well as representatives of the United Nations and specialised agencies such as other international governmental organisations, nongovernmental organisations and donor agencies, came together to inform the principles of inclusion and contributed to the agenda for achieving education for all and "for making schools educationally more effective" (UNESCO, 1994, p. 3). The Salamanca Statement therefore represents a worldwide consensus on the direction of special needs education and the movement toward education for all, "particularly those who are most vulnerable and most in need" (UNESCO, 1994, p. 3).

In the same year, South Africa entered a new era after the elections, democracy was introduced and a socio-political shift took place that emphasised values such as equity, non-discrimination, freedom from discrimination, respect and social justice. The framework also was provided for the Constitution (Swart & Pettipher, 2011, p. 18). Policy documents and subsequent legislation related to inclusive education reflected these values (Swart & Pettipher, 2011, p. 18).

It thus would seem as though this theme of political factors reflects misperceptions regarding the move towards IE in SA among the participants in this study. Ignorance of international emphases on inclusion principles seems to have resulted in skewed

views, including blaming and ascribing IE to serving political ideologies rather than universal principles of human rights.

5.2.2 Paradigmatic Values

The themes of paradigmatic values are represented by the following subthemes, namely concepts around social justice and human rights, as well as understandings of disabilities.

5.2.2.1 Notions of social justice and human rights

The understanding of social justice, as used in White Paper 6 (Department of Education, 2001) or in the Constitution, was interpreted by most participants through political lenses and a belief that it has been forced on them by legal means. It seemed clear that, in most instances, this interpretation was internalised and part of a personal belief system. This personal belief system was described most aptly by participant 4:

"... whatever you decide to believe in your little heart, nobody can influence, because that's your own thinking."

The understanding of having human rights enforced by law is illustrated by the following quote, also from participant 4:

"But when you come into a social context whether it's at school, at church, wherever you go, then there shouldn't be any discrimination and that's where the justice part comes in and it's by law ... written in stone."

Although there is some understanding of social justice, it is clear that most of the participants did not believe that it is reachable in our society.

"But I don't think it (social justice) is always beneficial ... I think the idea where it stemmed from was in order to make it beneficial for the children and I think that in practice it doesn't always work that way." (Participant 11)

5.2.2.2 *Understandings of disability*

In White Paper 6 (Department of Education, 2001), the term 'disability' is rephrased as 'barriers to learning'. It seemed as if different, albeit still sometimes accurate, views and understandings of what a 'barrier to learning' is were held by the participants.

Participant 7 explained a 'barrier to learning' as follows:

"Something that stops you from being able to achieve what you are able to achieve ..."

"Um, so, if my mental capacity or my IQ says that I am a number and I'm able to achieve that number because of a various number of circumstances, whether again, reading issues or social issues or not being able to see or hear, then that's going to become a barrier to me achieving what my IQ says that I am capable of." (Participant 7)

Participant 5 saw it as:

"... enige iemand wat nie (kan nie sê normaal nie, want wat is normaal?) maar wat nie gemaklik in 'n klas kan sit en dieselfde as die res verstaan en inneem en kan skryf en emosioneel ook kan optree en ... al daai dinge voldoen nie, dan is daar 'n hindernis." / ... anybody who cannot (cannot say normal, because what is normal?) but cannot sit comfortably in a class and understand as the rest do and take in and write and conduct themselves emotionally and ... all those things, then there is a barrier."

Participant 4 had a solution-focused answer:

"Well, a barrier, for me, was always something that you could cross. Like a barrier is like a hurdle, so it's something in your way that you could get past with help or assistance, um, so for me, like the word 'disability' and 'barrier to learning' is not really that different to me, because a disability means there's something that you are not able in, um, and that's the same as a barrier, if there's a big hurdle and I can't cross it physically, then I need help to cross it"

... the word 'barrier' does assume the fact that you can push past it ... 'Barrier' is movable ..." (Participant 4).

Participant 12 stated:

"Wel, ja, as 'n kind nie die vermoë het om op die standaard te kom waarop hy moet kom nie of nie leer wat hy moet leer nie. Ja, as hy een of ander, um, gebrek het, of ja, iets in daai lyn."/Well yes, if a child has not got the ability to achieve the standard expected or cannot learn what he is supposed to learn. Yes, if he has some or other disability, or yes, something like that."

The subthemes above have been grouped together to form the theme's paradigmatic values.

In the literature there is an emphasis on the fact that transformation to an IE system requires teachers to modify their values and practices (Donald et al., 2010). Ainscow (2007, p. 6) calls for a "challenge in the thinking behind the existing way of working" and states that the focus must not only be on the practice of IE principles. Furthermore, he states that challenging the beliefs and values of teachers, and the contribution it makes to practices, can contribute to a growing commitment to inclusion.

The reasoning behind the change in the terminology that is used, from 'disability' to 'barriers to learning', seems clear, as in essence it represents not only a change of words, but also an effort to move towards a change in paradigm. It implies a shift from 'problems inside the learner' only, to 'problems in and outside the learner', and therefore, by implication, focuses on 'problems in the systems involved'. Such reasoning therefore moves away from educational failure caused by the characteristics of the individual learner only, to an "analysis of the barriers to participation and learning" (Booth & Ainscow, 2002, in Ainscow, 2007, p. 3). It basically underlines the move from a 'medical model of disability' to a 'social model of disability', as described in Chapter 2.

5.3 EXOSYSTEMIC INFLUENCES ON READINESS

5.3.1 Department of Education

On the exosystem level, one important theme emerged from references in the data to the **Department of Education (DoE)**. References to the DoE (until 2009 the state department responsible for all education matters) are used interchangeably with those to the Department of Basic Education (DoBE), which, since 2009, is the state department responsible for basic education. The subthemes that constitute the theme Department of Education are DoE/DoBE does not prepare teachers, constant pressure, no resources, and policies with no practical solutions. I shall describe these subthemes separately.

5.3.1.1 DoE/DoBE does not prepare teachers

There was agreement between all the participants that the Department of Education (DoE), which is currently known as the Department of Basic Education in order to differentiate it from the Department of Higher Education, did not and does not prepare teachers adequately for inclusive education.

"*They don't ...*" was the answer from all participants to the question on 'the way the DoBE prepares them' for the task ahead.

One teacher mentioned that there had been one workshop on IE, but that the DoBE could not answer questions regarding IE:

"... hulle het eintlik die teorie van inklusiewe onderwys bekend gestel en toe dit tyd is vir vrae, en mense meer by die praktiese uitvoering wou kom van die teorie, toe het hulle nie antwoorde nie, so ek dink nie hulle weet self nie ... Hulle weet net almal moet binne dieselfde skool geakkommodeer word ... Maar hoe weet hulle dit?" / "... they introduced the theory on IE and when it was time for questions, and people wanted to get to the practical application of the theory, then they did not have answers, so I think they do not know themselves ... All they know is that everybody must be accommodated in the same school ... But how do they know it?" (Participant 2)

5.3.1.2 **Constant pressure**

Responses that occurred during most of the interviews were that "**constant pressure**" was being placed on teachers by the DoBE. It seemed that the pressure referred especially to time pressures. This pressure is illustrated by the following contribution from participant 4:

*"... but I've been changed for a very long time (Laughs – I'm "saved"!) but for me, that does not make me not be in a school, where I have 30 kids in my class, at least, and I sit where, um, there's a speed I need to work at, there's a **curriculum** that needs to be **finished** and, if we don't finish it, um, ..."*

Consensus seemed to be that, because of this pressure put on teachers by the authorities, learners miss out on important learning opportunities and end up not learning effectively.

"... the kids who fail get put through by adding their marks and giving them things and, at the end of the time you came in to grade 11, grade 12 and there's kids there that don't know how to say – I just dealt with it today – what is a meervoud (plural)? They didn't know what that is! How can you not know, in grade 11, what a meervoud is? And, just because they were just rushed through the system." (Participant 4)

5.3.1.3 **No resources**

The answers to the question of what kind of resources the DoBE supplies teachers with when a learner experiencing a barrier enters the school were the same in all the schools:

"Geen ... Hulle gee nie eers gelde sodat jy jou skool kan toerus nie. Ek was by 'n skool gewees waar daar 'n kind wat 'n fisiese gestremdheid was wat eintlik ramps en goed nodig gehad het en die Departement het net gesê: 'Jammer. Julle voldoen nie aan die maatstaf nie' ..." / None ... They do not even supply finances for you to equip your school. I was at a school where there was a child with a physical disability who only really needed ramps and things and the Department said: Sorry. You do not fulfil the criteria ..." (Participant 8).

5.3.1.4 *Policies, with no practical solutions*

The consensus seemed to be that many policies have been introduced by the DoBE, but that they do not provide teachers with practical ways of implementing these principles:

"Die probleem is praktyk ... en ek dink ons het oorgenoeg beleide en sisteme en wetgewing. Maar hoe gaan al daai goeters nou geïmplementeer word? Die praktiese implikasies. Waar gaan die hulp vandaan kom? Um, wie gaan die sisteme in plek sit? Wat gaan die Departement doen, behalwe wat op papier is en mondelings deurgegee word. Um, ons moet veranderings sien – praktiese veranderings sien ..." / The problem is practice ... and I think we have enough policies and systems and legislation. But how are all those things going to be implemented? The practical implications. Where will help come from? Um, who is going to put the systems in place? What will the department do, except for what is on paper and what is conveyed orally. Um, we have to see changes – practical changes ..." (Participant 2)

The abovementioned subthemes were grouped together to constitute the theme Department of Education. White Paper 6 (Department of Education, 2001, p. 6) acknowledges that the "educators and the system as a whole" need support and that inclusive education and training enable "education **structures, systems** and learning methodologies". Furthermore, in the literature (Chapter 2) it was made clear that change and transformation are needed not only within the individual participant, but also in the education **system** – provincially and nationally. System change, according to Peirson et al. (2011, p.308), refers to "second-order change as a change in the status quo to transform or reframe fundamental system dynamics, **structures, resources**, rules, norms, and relationships".

It would thus seem as though the DoBE prescribes change, but that the participants experience it as if they are not provided with the necessary tools to implement the changes needed.

5.4 MESOSYSTEM INFLUENCES ON READINESS

The themes that emerged from the data referring to the mesosystemic influences on the phenomenon studied are school support practices and resources in the school. Both of the themes had subthemes, which I shall describe respectively.

5.4.1 School Support Practices

The theme of school support practices is represented by the following subthemes, namely the role of the principal, collaboration and support, continued education and school management priorities.

5.4.1.1 *Role of the principal*

Within all three participating schools, the participants mentioned that the only part the principals played in the inclusion process in their school was the initial intake of the learner. The consensus was that the principals do not always understand how important their roles are in the system change process. Participant 11 stressed the importance of the principal's role not only in being interested in inclusive education, but also motivating his staff to implement the principles of IE:

"... He needs to try and sell it (IE to the staff) and at the moment I don't think he's actually interested. I don't think it's important enough for him to try and sell it."

Furthermore, participant 11 mentioned that the way IE was presented to the teachers was also very important:

"... he has got quite a big selling point to do ... instead of shoving it down teacher's throats, saying 'You will do this! It is part of your job, full stop', You actually need to understand the anxiety that goes with it ... and actually looking at us as people ... basically looking at our anxieties and selling it. It's a change management thing" (Participant 11)

The principal's role is also seen as a preparatory role in the sense that he or she needs to prepare the teachers beforehand for the learners with barriers that will be in their classes:

"... the principal has that role to play of knowing who is going to be in that classroom the next year and preparing the teachers for it ... not just saying, "Tadaah!" ...Wing it, when it happens!" (Participant 4)

Also, the fact of enough time from the intake of the new learner to the start of the new school year, to prepare the teachers, was emphasised by the participants:

"... in the beginning of the year, when we have these kids accepted. They don't come in the day before school and say "Hi, here I am! I'm blind. Help specific training for the next year ... I would rather be prepared ..." (Participant 7)

Participant 4 exclaimed:

"... the principal must, he's the one that must make the decision, when that child's been admitted, to not come into the staffroom and go "Tadaah!", but works it in slowly and sells it to us ..."

According to Swart and Pettipher (2011, p. 21), school principals need to recognise their responsibility "to set the tone of the school and help the school as a whole to become and maintain a supportive, caring community". In a review of the literature about aspects that affect teachers' attitudes towards inclusion (Avramidis & Norwich, 2002), the role of the "head teachers" (p. 141) has been highlighted. Enthusiasm and support lead to greater tolerance and a more positive attitude towards the implementation of inclusion. Van Reusen et al. (2001) also stress the importance of continuous support for inclusion efforts by school administrators. Ainscow (2007, p. 4) highlights the importance of understanding and states that the role of the "principal and other senior staff is crucial in encouraging such rethinking amongst their staff".

In this study it would thus seem as if the principals of the schools might not thoroughly understand the importance of their role as change agents in the implementation of IE.

5.4.1.2 Collaboration and support

Swart and Pettipher (2011) state that the cornerstone of successful inclusive education is support and collaboration. This represents one of the proximal

processes (p. 21) that form an important part of Bioecological Theory. If this is lacking in a school it will affect the staff negatively. Only one of the schools seemed to have some kind of collaborative plan in place. This particular school also had a psychologist and occupational therapist as part of the support team. Applicant 6 stated:

"Well, there is ... the Student Development Unit, which has been developed over the last number of years into something that I think supports a huge amount of the students in a very good way ..."

And also: "the teachers of the specific student would be called together and be given information about the situation and so forth. And, yes, it also happens with emotional things, you know, if there's a family crisis or something that information will also be shared ..."

In the other two schools, it seemed as if it was expected from the counsellors to coordinate efforts of supporting an incoming learner with a barrier to learning. It seems as if the counsellors either did not have the time, or did not have appropriate knowledge to coordinate collaborative initiatives. The following responses were given to a question regarding the inclusion process in the schools:

"We are told that we have now got a blind child or an Asperger's child... or something... and so we'll have one lecture and some notes and we'll try, as much as we possibly can, to deal with this because you are told you will deal with this. And off we go..." (Participant 7)

Participant 2 responded:

"Wel daar is eintlik nie 'n proses nie. Hy word nou net ingeskryf ... So dis ons verantwoordelikheid om eintlik dit te gaan uitvind en te gaan kyk wat is die agtergrond."/Well there is actually no process. He is just admitted ... So it is our responsibility to go and find out and to look at the background."

A specific question was asked about collaboration in the school to accommodate the learners with barriers to learning, and the responses of participants 8 and 5 were:

"Jy het hom ... Baie geluk!"/"You have him ... Congratulations!"

"Sterkte!"/"Good luck!"

Participant 8 referred to an incident where a new child entered the school and the principal asked for a report from the previous school, but the report never reached the counsellor or the teachers. There was a question whether it was a priority for the principal regarding his role in the collaboration process, as well as the importance of providing teachers with the necessary information:

"Van die ouers, wat die inligting het, soos wat jy nou sê, het ek geen gekry – niks gekry. Ek weet nie of jy ooit 'n verslag gekry het van die vorige skool nie. So ons het met hierdie kind, wat hierdie 'labe' as jy dit so kan sê ... gekry in ons klasse en that's it!"/"From the parents who gave the information, I got nothing. I do not know whether you ever received a report from the previous school. So we had this child, with this label if you can put it like that ... got him in our classes and that's it." (Participant 8)

Participant 6 referred specifically to the effect that "not being informed" had on a teacher's approach when a student diagnosed with AS was included in the class:

"... and nobody had told me about him and the way in which he would respond and react and so forth ... so it was tremendously difficult for me to deal with ... there was that mixture of amusement and shock and I remember I didn't do half as much with that group than I did with the others because of this boy ..."

On the other hand, the value of "being informed" and equipped with appropriate knowledge regarding the characteristics and behaviour of the specific learner with AS is demonstrated below:

"... then I found out afterwards that he was coming to my class ... fortunately at that point, I had been given information ... so I felt more confident ... because I could see the child in that light, I could see more of his ability and how to use it ... I could deal with his behaviour much better than I did that first time." (Participant 6)

Participant 7 also emphasised how helpful it was when information regarding a learner with AS had been passed on by one of the teachers in the group:

"Or, if you see him going red or things ... But it was tough, like, I had no idea! Like you told me that you actually need to say to him, 'You can come and speak to me if you ...' You know, he needs permission to do that. Now, I have no idea about that, so I did that ..."

And it came as a surprise that the teachers participating in the focus group interview were not aware of the fact that they were all part of a particular learner's (with AS) 'team'!

"Um, but the other thing is it would be quite nice if there were connections made between, like I didn't know that you taught (... the boy with AS) ... I didn't know he was doing art ..." (Participant 7)

The same participant suggested the following to improve collaboration in their school:

"The teachers who are involved in teaching this boy (with AS) and ... whether we all swop cell phone numbers or we all have our gmail Google chat open. And, I mean, luckily, touch wood, nothing has happened yet where I've had him in the class and he has had an explosion ... but it would just be nice to be able to say, 'Heads up! This has happened'. Or 'Just watch out, this has unsettled him'. Just that little, you know, two seconds of warning and I can warn other people to say, 'Just watch for this', or 'Watch for that'. That for me is collaborative working. Collaboration, all just sitting together, doesn't always work!" (Participant 7)

As described in Chapter 3, Myles et al. (2005, p. 20) emphasise the importance of **collaboration** (Step 5) and of teachers being part of the planning of the individual support plan (ISP) for the learner with AS. On top of that, they add that the general education teacher is responsible to report back to the institutional level support team (ILST) regarding the progress towards academic, behavioural and social goals and objectives set for the particular learner. There has been no evidence of an ISP in any of the schools, but there have been some elements of collaboration at the schools.

In one school, the participants realised the importance of information sharing as part of the collaboration process. One participant stated:

"They (the parents) sent me a list of information that I could distribute to the rest but it was just ... ja ... all those helpful things, working together."
(Participant 4)

Participant 7 applauded how helpful it had been when information was shared by the fellow teacher:

"you sent me that email which was absolutely invaluable. Like, I can't tell you how much that saved me." (Participant 7)

Participants at a particular school seemed to understand collaboration and had suggestions about who should be involved in the process. Participant 11 suggested:

"Parents, the teachers, the child if necessary ..."

The importance of the child being part of the collaboration process was emphasised as well:

"... we can actually talk together ... we're not playing piggy-in-the-middle, bouncing from, you know, over the child. We're actually all part of the process." (Participant 11)

It also has been suggested that 'outside sources' should be part of the collaborative team:

"... people who have got the know-how ... experience in Asperger's ... 'We've got this happening and we don't know what to do with it' ... And we'd send through, um, a small group and we'd discuss with them, how we could handle ... suggestions and things like that." (Participant 11)

The importance of meaningful collaboration was shared by participant 4:

*"... collaboration needs to be very well planned. It needs to be the right type of information that needs to be shared ... collaboration in a sense of very detailed information ... but **specific information**. Not a long e-mail about the general effects and nah nah nah ... that also, but also ... **teachers, parents, all those things ... must be involved.**"* (Participant 4)

Participant 7 emphasised the importance of collaboration, specifically because of the unique characteristics of every learner with AS:

"Because the parents were telling you ... because it's one thing to Google Asperger's to find out that they do this, they do that, dah, dah, dah. But, every child's different and so this was information for him, so when he does this, when he does this, I mean, that was just, I was absolutely so pleased that you did it" (Participant 7)

Participant 7 was upset because there was not an effective collaborative process in the school:

"I can't collaborate with anybody else if I don't know what's going on and that's, for me, one of the major stuff at this school. Nobody knows what's going on in anybody else's life. Everybody's on their own little mission and trying the best that they can but I don't know and then 'Ah, here comes something' and I have to deal with it."

Van Reusen et al. (2000, p. 15) specifically mention the importance of all parties (which include teachers and administrators) having to work "collaboratively" to assist the learner. In the same way, Skrtic (1991, in Ainscow, 2007, p. 3) indicates that inclusive education is "likely to be more successful in a context where there is a culture of collaboration that encourages and supports problem-solving". Cumine et al. (2010, p. 81) include in the multi-agency support team that forms part of collaboration to support the learner with AS a "child or adolescent psychiatrist; speech and language therapist; educational and/or clinical psychologist; teacher or educational specialist" and, in some instances, an occupational therapist and physiotherapist. They also add the special education needs coordinators (known in South Africa as the institution level support team (ILST) (Department of Education, 2008), or the classroom teacher, the support teacher and the support assistant to the key role players in the support network team (Cumine et al., p. 186). As mentioned before, only one of the schools had a support team in place with a psychologist and occupational therapist. The other two schools had counsellors, who were overwhelmed by their responsibilities in the particular schools. In South Africa there are only 'student support teachers' in some schools, and it seems as if they do not

fulfil the role as coordinator of the support team in the school. Their role is still seen as that of the 'remedial teacher' who will 'pull out' the learner and 'fix' him in order to make the teachers' work easier.

The literature (Attwood, 2007; Cumine et al., 2010; Myles et al., 2007) also emphasises the involvement of the learner and parent as part of the 'partnership' and collaboration for support. Myles et al. (2005, p. 16) state that it is "vitally important to develop a working partnership" with the parent of the learner with AS. Furthermore, they emphasise that the parents are "the best source of information about their child and AS". Furthermore, ongoing communication and collaboration "create a powerful alliance" and break down the effects of any previous negative experiences with schools.

The participants reported some 'liaising, collaborating and **reaching out to parents**' (step 2) in one of the schools. Participant 4 described how valuable it was to connect with the parents:

"And his parents, specifically, have been very helpful. They sent me a very long e-mail before school started about what to expect and if he gets like this, what to do. And so, for me, they were incredibly helpful because I knew exactly what he needed from me and I feel like I provided it for him from the beginning because that made it so much easier for me."

Participant 7 emphasised the important role of the connection with the parent to obtain learner-specific information:

"I must say the parents have been very helpful. When I first met XXXX, I didn't even know he was Asperger's. I just noticed that he was slightly different, but I thought, well you know ... that e-mail which was absolutely invaluable. Like, I can't tell you how much that saved me ... because it's one thing to Google Asperger's to find out that they do this, they do that, dah, dah, dah ... But, every child's different ... so this was information for him, so when he does this, when he does that ..."

There was little evidence of the schools involving 'outside agencies' as part of the collaboration for creating an individual support plan, and providing support and follow

up to evaluate whether set goals had been reached in the support of the learner with AS.

It became clear that the participants from the school where there had been an ILST felt more supported because of a collaborative approach at their school. The participants from the other two schools felt exposed and left to their own fate.

5.4.1.3 Professional development

Swart and Pettipher (2011, p. 22) emphasise the importance of "pre-service and in-service experiences, a common vision, conceptual framework and language, and a set of instructional and technical skills to work with the needs of diverse learner". November, Alexander and Van Wyk (2010, p. 789) argue that effective change takes place by means of staff development and in-service training, and thus it is of "critical importance that Head of Education Departments locate the trust, confidence, authority, ownership, responsibility and professional accountability for staff development within the principal-educators as school and classroom managers".

Participants from one of the participating schools mentioned continuous education opportunities after school hours, but apparently this does not focus on barriers to learning or training regarding inclusive education principles:

"But there's no special needs training here ... It is really good and does offer a lot of really excellent courses as well as fun ones, but it frustrates me that there are no courses on how to deal with special needs, which are relevant to our school learners ... let's have lectures on Asperger's, have lectures on autism ..." (Participant 4)

Training that focuses on barriers to learning seems to be on a voluntary basis, and it is the teachers' own decision whether to attend workshops or lectures. One of the teachers expressed her frustration regarding the 'attendance option policy' in the following way:

"I used to give ADHD lectures on a fairly regular basis ... we haven't done them for a while though, because what happened ... at first it was very well attended ... then the demand went" (Participant 11)

As mentioned before with regard to pressure on teachers, and also emerging in the following theme, among others, the available time seems to be problematic for teachers, therefore many teachers do not attend the workshops after school.

Findings reported in the literature emphasise the importance of professional development for teachers to understand the principles and implementation of IE. In a literature study done by Berry (2011, pp. 4-5), seven studies "related to the topic of teachers' concerns and suggestions regarding teaching students with disabilities in general education classrooms" were compared. In five of the studies, training and professional development were mentioned as being important themes in the concerns and suggestions made.

In the current study it seems as if some professional development opportunities do exist in the schools, but the focus might not always be on relevant issues. Furthermore, workshop attendance is voluntary, and therefore it is the responsibility of the teacher to make that decision. In the next subtheme the need for preparation and training is highlighted even further.

5.4.1.4 School management priorities

The participants felt that if there was training in the school, it did not seem to be a priority for the administration, but almost a 'learn as you go' scenario. Participant 4 expressed her frustration in the following manner:

"My problem with our school specifically, but it's in general is that we have staff development say on one day of the week and we have a meeting ... and they come and tell us about something ... usually before a netball practice. So, your brain is like, finished. Just finished with school, just rushed out of your classroom to get to the staffroom, you've got 45 minutes, the bell goes and the person has to stop talking and then you must go to your sport ... I've learnt absolutely nothing at the staff meetings ... So, 60 staff members in a staffroom with a person presenting ... and then that's the session ... my brain was so busy with other things. So for me, it's not purposeful."

Once more, the limited time available and all the information that has to be absorbed, whilst having to prepare and think about subsequent responsibilities, make it seem

as if too much is asked of the teachers. The willingness to learn does exist, as participant 4 pointed out:

"That's the thing! We have that week where we go play bowling, and do team buildings and eat chocolates and things like that. But ... I would rather be prepared ... I want to be prepared for what I have" (referring to the learner with a barrier).

The priorities of the principals are not necessarily aimed towards getting the teachers ready to support the student with the barrier to learning:

"... when we have these kids accepted. They don't come in the day before school and say "Hi, here I am! I'm blind. Help me!" They don't do that! I mean they apply the year before, so we can have specific training for the next year ..." (Participant 7)

One of the participants suggested a solution to the problem:

"... what I would do is I would have a day ... a "No teaching today". The kids either have movies or something ... we spend that whole day working on various things (referring to barriers to learning) that are in our school. So, you're ADHD, your Asperger's small groups ... and then you move around (to the respective groups) ... and you learn ... They're only going to bother if it's during school time ..." (Participant 7)

Effective communication between school managements and teachers was mentioned by several participants.

"One major issue for me at this school ... and I think I'm more aware of it because this year I have an Asperger's child in my class ... is communication from the top structures. We heard yesterday afternoon, the last lesson, that a radio station was going to be here and that's a major hassle in the school system and I would have loved to prepare him but then he was gone and he got an sms home there's a radio station coming to the school, you need to be here an hour earlier. It messes up their whole little framework and for me, that sort of thing ... the radio station didn't tell us on Wednesday that they're

coming on Thursday. There was obviously planning happening at the school that we just didn't know about." (Participant 4)

Especially in the light of the specific need of children diagnosed with AS to be prepared for change, such communication was deemed as very important by the participants.

"Same as this hockey match today. Um, he's used to his going to assembly (after lunch on a Monday) ... The first thing that happened today is he came to me and he said, "Do I have to go to the hockey?" and he was very anxious because he had karate and had to leave 15 minutes before school ends and he's used to sitting by me in assembly and I'm telling him it's now time and he goes. Now I'm on the field (the teachers played a hockey game against the learners) and I am playing, so there's nobody to tell him it's okay for you to now go and he didn't want to go to the hockey because he didn't know how to handle it. So I said to him, "It's okay, you can go, I'll sign you out now, so that your mom can come and pick you up now because it was just a um deurmekaar for them. So, in that sense, collaboration comes very much from the top structure. I can't collaborate with anybody else – I'm using this word now quite lekker, hey?" (Participant 4)

The focus of this subtheme has been the priorities of the school management in the support of teachers in the IE process. It seems as if the participants generally experience an absence of true acknowledgement of teachers' needs with regard to specific training and preparation for effective support of learners who experience barriers to learning. Effective communication and participation by the management as part of the support team, and thus collaboration, seem to form part of what they would expect as support from the school management structures. Such acknowledgement would include the timing of training opportunities, appropriate topics for the training and the utilisation of existing knowledge and expertise, as well as participation in ISP planning meetings.

5.4.2 Resources

The theme resources was represented by the following subthemes, namely time, physical structures and resources, funding and class sizes.

According to Swart and Pettipher (2001), effective inclusive education programmes rely on the effectiveness with which existing resources are being utilised in new ways and new resources are added.

One participant mentioned how the attitudes of teachers change when they feel equipped for the task at hand:

*"I have seen some teachers who have had a change of heart when they have been **equipped properly** ... and we're not equipping them. We're not! We can't afford to equip them."* (Participant 11)

Participant 5 referred to the fact that, although the teachers had a change of heart, there was a lack of resources, which made their task difficult:

"Ek dink glad nie dis 'n hartsverandering nie. Ek's heeltemal gereed, want ek is 'n onderwyser en ek het 'n hart vir die kinders ... Ek kan nie prakties hulle almal help nie. Daar is mense wat nie wil nie ... maar ons wil, graag. Maar prakties werk dinge nog nie so lekker uit om regtig te doen wat ons harte graag wil nie ..." / "I do not think this is a change of heart. I am totally ready; because I am a teacher and I have a heart for children ... I cannot practically help everyone. There are people who do not want to ... but we want to, very much. But practically things do not work as it should to do what our hearts very much want to ..."

5.4.2.1 Time problem

In all three schools, time restrictions were a major theme in the challenges experienced by the participating teachers. Time also was a recurring concept mentioned over different subthemes and themes:

"No, seriously ... you can't expect teachers to do it 45 minutes after school. You can't expect them to go and do it in their own time because there's no time. The only time you're going to get people to actually pay attention and to be involved, particularly ... They're only going to bother if it's during school time ..." (Participant 7).

Participant 8 complained that, idealistically speaking, teachers should spend some extra time with the learners, but in practice it does not work this way:

"Dit is die teorie. As dit by die praktiese implikasie kom, wanneer help jy? Help jy ... Rammel jy gou vinnig jou werk af met die 33 wat kan, en dan vat jy die vyf apart en werk die volgende res ander 45 minute met hulle? Of doen jy dit na skool ten koste van die buitemuurs wat die Departement vereis ons moet doen?" / "This is the theory. When it comes to practical implementation, when do you help? If you help ... You rush your work with the 33 that can, and then do you take five separately and work with them during the rest of the 45 minutes? Or do you do it after school to the detriment of extramural activities which the Department expects of us?"

The participant continued by exclaiming:

"Jy wil graag – ek dink daar's geen van ons wat om die tafel sit wat nie 'n kind wil help nie - maar die praktiese van 'Wanneer help jy' – 'fisies' wanneer help jy?" / "You want to very much – I think there is none of us around this table who do not want to help a child – but the practical concerns of when do you help – physically when?"

All the participants mentioned time restraints and the pressure to get through the syllabus, and the fact that they did not have extra time during the teaching periods to assist learners:

"Ek het eintlik, regtig nie tyd om 'n som twee keer te verduidelik nie, die sillabus gaan so vinnig ..." / "I really do not have time to explain a sum twice, the syllabus just goes too fast ..." (Participant 5)

The participants complained that they did not even have time during their lunch breaks or after school for themselves:

"... ek het altyd in pouses die kinders gehelp ook, maar jy't een pouse waarin jy tien ander dinge moet gaan doen. Hoe gaan jy jou hokkie reël of jy moet jou sport gaan reël en jy moet op daai lys check ... en seker badkamer toe ... dis verby. Ok, so nou's die kind ook nie dan gehelp nie ... Nou kom jy na skool en spring jy in die kar en jaag sport toe ... En êrens moet jy lewe ook ... / "... I

used to help children during break times, but you only have one break with ten other things to do as well. How are you going to organise your hockey or your sport and you must check that list ... and go to the bathroom ... it is over. OK, so now the child is not helped either ... Now you get to after school, jump in your car, drive to sport ... And somewhere you must live as well ..." (Participant 5).

The question this participant was left with was: *"En waar kom die tyd vandaan waar die kinders nou gehelp moet word?" / "And where do you find time to help the child?"*

Previous studies on teachers' perceptions of IE have shown that extra time to prepare for supporting learners with barriers is of concern to many other teachers (Berry, 2011; Horne & Timmons, 2009).

Participant 2 complained that knowledge about children who experience barriers to learning is in itself not enough, and that time is necessary to use and apply the knowledge. Feelings of guilt emerged. He exclaimed:

"Nou weet jy dit en jy voel baie meer skuldig, want jy het die kennis, maar jy kan nie die probleem identifiseer. Maar, byvoorbeeld die tyd waarvan ons gepraat het, bly 'n probleem." / "Now you know it and you feel much more guilty, because you have the knowledge, but you cannot identify the problem. But, the time we have spoken about, stays a problem." (Participant 2)

5.4.2.2 Physical resources

Lack of physical resources or environmental barriers has been a theme that emerged as a challenge to support learners experiencing barriers to learning. In one instance, the anxiety surrounding the lack of resources was expressed as follows:

"So I waited for two terms to get a ramp and, in that time, whenever that class came to me, I was anxious because I had to think, where am I going to find four strong boys that are not going to say anything negative, to pick up this wheelchair into my class and then find another four boys at the end of the lesson to take it down again." (Participant 4)

Naicker (2007) states that the focus of the medical model or individual deficit theory is the individual, who is seen as helpless and dependent and as needing assistance and help outside the regular classroom. Therefore, no attempt was made to evaluate the system for its deficiencies. The system did not provide a ramp to gain access to the mainstream school for a learner in a wheelchair; consequently, access to the school was hindered because of a barrier in a deficient system and not a deficient person" (Naicker, 2007, p. 3).

In a study done by Pivik, McComas and Laflamme (2002, p. 3), the question asked was whether special education efforts "meet the needs of children with disabilities, and comply with our convictions of inclusion, full participation, and citizenship". The participants were learners with mobility limitations. Environmental (physical) barriers were one of the problems experienced the most: doors, passageways, elevators, washrooms, stairs and ramps. The authors stated that this lack of accessibility not only isolated students and prevented them from "opportunity for activity, but also impacted on social activities such as school dances" (Pivak et al., 2002, p. 3). All three of the schools in which this study was done were older schools and therefore the environmental barriers were very real and were reported by the participants to cause stress for the teachers who deal with learners experiencing physical barriers to learning. None of the schools had a 'sensory room' designated specifically for learners with sensory challenges.

In the current study, specific questions regarding the inclusion of learners with AS elicited misgivings in the participants regarding the inclusion of all learners in general. The conversations regarding the lack of physical resources emanated from the questions, "how ready is your school system to support learners with barriers to learning?"

5.4.2.3 Funding/money

Funding, or the lack of it, was a complaint, especially in the public school interviews. One participant stated:

"We haven't got the funding. And ja, it would be delightful to have it, but in reality it doesn't feature" (Participant 7)

Participant 8 mentioned the fact that if IE was implemented the way it should be, schools in privileged neighbourhoods would still be advantaged, and then the equality principle would be jeopardised any way:

"Die ironie is die praktiese implikasie van so 'n program gaan weer 'n onderskeid tussen skole tref. Gaan weer 'n onderskeid wees tussen jou elite skole en die gewone hoofstroom skole, want dit gaan oor geld. Dit gaan oor die fasiliteite, dit gaan oor ekstra onderwyser aanstel en dan gaan jy weer waar ons gekom, waar hulle eintlik almal dieselfde wil hê gaan ons nou weer net onderskeid hê tussen mense – the "haves" and the "have-nots" / "The irony is that the practical implementation of such a programme will once more distinguish between schools. It will be about differences between elite schools and the ordinary mainstream schools, because it is about money. It is about the facilities, it is about extra teachers and then you go again to where we come from, because they want everybody the same, we are going to distinguish again between people – the haves and the have-nots." (Participant 8)

5.4.2.4 Class sizes

The teachers felt that class sizes had increased over time because of the inclusion policy. This had negative implications for the possibilities of support for all learners, also those with unique needs or who experience barriers to learning:

"There are too many other people also needing my attention. And when Johnny is bouncing off the walls and hanging from the chandeliers, it's very difficult to sit with him and keep him away from everybody else and make sure he's not near a window or a door, and make sure that he's not touching anybody else, and he ... I can't do the stuff ... It's fine if I've got 12 or 15 in the class. But if I've got 32! I can't physically deal with it ... in a class of 32; I'll have at least five of them who are very ADHD" (Participant 11)

The above-mentioned four subthemes, namely time, physical structures, funding and class sizes, were grouped together to constitute the theme resources. White Paper 6 (Department of Education, 2001) and the Salamanca Statement (UNESCO, 1994) acknowledge the importance of support practices and resources in the

implementation of an IE system. In a study by Berry (2011), in which different studies were compared (as mentioned in 4.4.1.3), support, time to support the learners experiencing barriers, more time for planning, time for instruction and collaboration, physical access and class load factors were concerns mentioned by the teachers. It is clear that the participants in this study felt as if their effectiveness to implement inclusion principles cannot be achieved because of the lack of resources.

5.5 THE MICROSYSTEM INFLUENCES ON READINESS

The themes that emerged from the data that refer to microsystemic influences on readiness were teacher attributes and peer understanding and attitudes. I shall describe the two themes with the respective subthemes in the following paragraphs.

5.5.1 Teacher Attributes

As implied in the literature, readiness comprises an attitude of willingness as well as having the necessary skills and knowledge in advance; thus being able to go over into action without effort. As seen in the literature, according to Bronfenbrenner's bioecological model (Bronfenbrenner & Evans, 2000, p. 118), one of the outcomes of effective proximal processes will be 'competence', which is the "demonstrated acquisition and further development of knowledge, skills and ability to conduct and direct one's own behaviour across situations". 'Dysfunction', on the other hand, refers to the "recurrent manifestation of difficulties in maintaining control and integration of behaviour across different domains of development" (Bronfenbrenner & Morris, 1998, in Bronfenbrenner & Evans, 2000, p. 118).

5.5.1.1 *Paradigm shift*

Ainscow (2007, p. 3) refers to the recent process in which the "appropriateness of separate systems" within education has been challenged, "both from a human rights perspective and effectiveness". He mentions the fact that a medical model "distracts attention from questions about why schools fail to teach so many children successfully" (p. 3). This led to a proposal for reconceptualisation and a paradigm shift that had to move away from concentrating on the barriers within the individual learner to the barriers within the school system (Booth & Ainscow, 2002).

Engelbrecht, Howell and Bassett (2002) emphasise the importance of moving away from the medical model of disability, according to which individuals with a disability need to be taken care of and pitied. The Integrated National Disability Strategy for South Africa (INDS, 1997, in Engelbrecht et al., 2002, p. 64) explains how this model has created a dependency on limited welfare and health services, disempowered the individuals with barriers and isolated them from mainstream society. Naicker (2007, p. 2) also noted how the medical discourse has "shaped and largely influenced exclusive practices in the field of education, which continued for decades after their introduction".

In the light of arguments such as the above, there has to be a move towards human rights and the recognition of individuals with disabilities as equal citizens with equal rights and responsibilities (Engelbrecht et al., 2002, p. 64). Ainscow (2007, p. 6) states further that

"changing outcomes for students are unlikely to be achieved unless there are changes in the behaviour of adults ... the starting point must be with staff members: in effect, enlarging their capacity to imagine what might be achieved, and increasing sense of accountability for bringing this about ... the focus must not only be on practice; it must also address and sometimes challenge the thinking behind existing ways of working."

When speaking to the participants about inclusive education and the 'change of heart' that implies a paradigm shift, it became clear that each participant had his or her unique understanding of what this entails. Participant 11 said:

"I, in my heart, believe in inclusive education. In my heart I do. But when I see it in reality, I can't see it happening. So ... a change of heart, yes ... In a lovely world, where everybody had time and we weren't bogged down with admin and with large classes and we had aids and, you know, money and resources, then it would be fabulous ..."

Participant 4 added:

"My feeling is that my heart's been changed when I was about two, when I met my first friend that had a disability ... I've always had a passion and a heart for

*this, but I still can't deal with it, if that makes sense? So, changing the heart is a very easy thing for me to do ... If it's something that affects me, then I change very quickly, and I change my opinion, but that does **not** change **enough** for me."*

It seems as if Participant 7 understood the notion of a paradigm shift:

"... when you talk about inclusive education, we're talking about including one person into the group. Now change of heart means you are including everyone into the group. And that's a very small-sounding difference but an immense mental shift because everyone sees (well, not everyone), but a lot of teachers are seeing inclusive education as in we are bringing the different person and trying to make them fit in to the rest of us, rather than saying, we're all different, let's just get in the bundle and go."

A comment about 'normalcy' highlighted the fact that, in some cases, a paradigm shift has not been made; that individuals experiencing barriers are not seen as equal citizens with equal rights and responsibilities. As one participant stated:

"Dit gaan verskriklik klink maar as jy jouself normaal wil ag, dan gaan daar normale verwagtinge van jou gestel word" ... "If you want to be normal, then you are treated as normal." ... As jy vir my inkom en sê "Ek is nie normaal nie." ... dan hanteer ons jou volgens jou behoeftes ..." / "It is going to sound terrible, but if you want to think of yourself as normal, then normal expectations of you will be set ... If you want to be normal, then you are treated as normal. "... If you come in and say "I am not normal" ... then we treat you according to your needs ..." (Participant 8)

Participant 11 stated:

"I've got the qualifications and the training to do it, in theory, but in practice I haven't bought into it, to be honest. I haven't bought into it. I've seen too many children fall through the cracks ..."

In some cases the participants in all the schools seemed to feel that there should be a prerequisite for learners to be in the mainstream school:

"If you're going to have your child at this school, I'm afraid we have got certain ... limitations ... things that we are able to do and what we are not able to do, and convince the parent, somehow, to actually listen." (Participant 7)

Participant 7 added:

"I mean it sounds heartless to say, but that's where that trickiness comes in, in terms of, if you want your child to come to this school and be treated like everyone else ... If you want to be a Catholic and you want to do whatever Catholics do or you are Muslim and you want to do whatever Muslims do, then you go to a school specifically geared for them ... If you go to a mainstream ... no particular then you can't expect everybody to fall apart and lie down for you because this is what your specific issue is."

In a study done by Wildeman and Nomda (2007) it was stated clearly that there is a lack of information sharing and advocacy in terms of a paradigm shift in South African schools. In this study it seemed as though most participants had not personally made the paradigm shift, although they declared their *"heart for children"*. It would seem as though the participants' understanding of having a *"heart for children"* and their understanding of how that plays out in teaching practice in schools may differ quite significantly. It could be that their wanting the best for children would imply segregation in terms of (dis)abilities, needs or differences (diversity).

The following statement by Engelbrecht et al. (2002, p. 66) describes how the whole process of IE demands a specific way of thinking about differences, and the ensuing issues of resources and service delivery:

"Once this is recognized and protected, the identification of needs, the allocation of resources, as well as the planning of delivery and services become aimed at creating equal opportunities for individuals with disabilities to enjoy these rights. Moreover, the focus moves towards overcoming the barriers in society that prevent effective integration and the enjoyment of equal rights rather than adapting individuals to 'fit in' to the society of which they are part."

Ainscow (2007, p. 6) concurs that the focus should not only be on the practice of IE, but sometimes the thinking behind the existing way of working needs to be challenged and addressed. Therefore, the seemingly unquestioned way of thinking by the participant teachers, the separateness of different groupings – whether it is on the basis of ability/disability or any other differences – might influence the teachers' readiness for IE in important ways.

5.5.1.2 Teachers' willingness

It has become clear that the teachers who took part in the study were willing and open to change. One participant said:

"... ons wil, dis hoekom ons hier is." / ... we want to, that is why we are here"
(Participant 5)

The participants' reflections highlighted their willingness to include learners with barriers to learning. Typical answers were:

"Meer as bereid ..." / "More than willing" (Participant 1).

There also was a willingness to be informed and assisted by a professional with knowledge:

"I am generally a very accepting person. When informed that a learner with disabilities will be in my class my first port of call is always the Student Development Unit to ask how I should approach the learner and how best to be of assistance in class for the learner" (Participant 3)

"Indien ek goed ingelig is omtrent die persoon en spesifieke dinge om in gedagte te hou, sal ek dit graag doen om ook vir daardie persoon 'n aangename en produktiewe leerervaring te gee" / "If I am well informed about a person and specific things to keep in mind, I shall gladly do it, in order to give that person a pleasant and productive learning experience." (Participant 6)

One individual expressed the following:

"Would love to be more involved. Even do courses part-time (have to work financially) if subsidised." (Participant 9)

It was evident that the teachers were willing, but that they needed assistance with the execution of the process. They needed knowledge and the skills to apply it in practice. According to Bronfenbrenner's theory (Bronfenbrenner & Evans, 2000), personal characteristics will influence and direct the proximal processes. Disposition (which includes willingness) can mobilise, sustain, interfere with or limit the proximal processes. It seems as if the teachers in this specific study were willing, but there were other factors that influenced the execution of IE in practice, which might have affected the proximal processes directly.

5.5.1.3 Ownership

A theme that emerged in all three schools was a belief that *"everything will be okay"* if they can have a teacher's assistant in the classroom to support the learners with barriers to learning. This could be an indication that they did not take full ownership for the support of the learner with AS in their classes.

"They need another helper ... a teacher assistant with them in the class, because they cannot keep up, most of the time ..." (Participant 11)

Participant 5 suggested:

"... wat 'n mens kan doen is om daai kind vir daardie spesifieke behoefte wat hy het (want behoeftes is so divers) ... kan uithaal ... gedeeltelik ... en iemand kry om daai vaardigheid te ontwikkel ... So, as 'n mens ook iets kan bewerkstellig wat sê daai behoefte kan ons aanspreek binne die skool self, hetsy deur 'n professionele spelterapeut wat ingekom ... ek weet nie wat die WKOD alles in plek het nie ... maar dan aan dit werk." / "... what a person can do is to take that child for that specific need that he has (because needs are so diverse) ... can take him out ... partly ... and get someone to develop that skill ... So if a person can manage something that gives the message that such a need can be addressed, maybe through a professional play therapist

that can come into the school when needed ... I do not know what the WCED has in place ... but then work on what is needed."

Some participants felt that a special school was the answer for learners experiencing barriers to learning:

"... daai kind sou eintlik beter gedoen het in 'n "spesiale skool" (Kom ons noem dit dan maar so, for lack of a better word) omdat hy dan op 'n ander manier assessee word. Hier assessee ons hom in die hoofstroom, volgens die hoofstroom standarde ... 'n spelling vergunning, dis die beste wat ek vir hom kon doen ... So, eintlik is dit vir hom 'n onreg om in 'n skool soos hierdie te wees waar hy eintlik spesiale hulp nodig het ... in 'n spesiale skool ... sal hy beter funksioneer." / "... that child would have done better in a special school (let's call it that for lack of a better word) because he would then be assessed in a different way. Here we assess him in the mainstream, according to mainstream standards ... a spelling concession, that is the best I can offer ... So, actually it is an injustice to be in a school such as this where he actually needs special help ... in a special school ... he'll function better." (Participant 8)

More than one participant felt that the parent's expectations were too high and unrealistic:

Her mom insisted that she was in the art class and the art class ... there's a long, thin corridor and the mother insisted that she was going to be in the art class. She's cerebral palsied to the point where she can barely hold a pencil ... Delightful child, but she's not an art student ..." (Participant 11)

Some participants gave responses that indicated clearly their true commitment and involvement with the learners with AS. It is clear that, even though they were not part of a collaborative process at school, they invested time to get to know the individual. This possibly indicates an **ownership** towards the learner they feel responsible for.

But the main thing has just been awareness. It's just like he's a little shining light that I now know is there. So, when things are happening I can just intervene ..." (Participant 7)

And when one of the learners with AS managed a situation where change was involved, the same participant exclaimed:

"I wanted to give him a gold star, I was so proud of him!" (Participant 7)

Ainscow (2007, p. 3), explains an "inclusive turn" as a working together in a particular context: "in working together to address barriers to education experienced by some learners ... it necessitates new relationships between teachers and learners". It is clear that "changing outcomes of students (learners) is unlikely to be achieved unless there are changes in the behaviour of adults" (Ainscow, 2007, p. 6). This calls for a taking of ownership from the teachers' side in order to practice IE successfully.

Brady and Woolfson (2008) found that teachers with a higher sense of efficacy attributed the barriers that children experience mostly to external factors, and had a greater belief in the power of their profession. They consequently were more accepting of ownership for the support of learners with difficulties.

5.5.1.4 Shared understanding of their roles and responsibilities

The participants felt that too much was expected from them as high school teachers, who specialised in a certain subject matter and therefore did not have a responsibility for the inclusion of the learner with special needs or a barrier to learning. One of the participants stated:

"There's also just the ... personality type, especially in high school. We are specialists ..." (Participant 11)

Another added:

"... there is not enough time to be able to specialise in absolutely everything." (Participant 7)

The fact that some teachers did not have any training in subjects that inform the support of learners who experience barriers to learning was mentioned:

"... I've got a little bit of psychology background where we did a few of these things at university. Um, but there are many teachers out there that had no ... maths teachers that never had psychology in their life, that will have to sit with

the same child and they don't necessarily want to go on courses and want to learn these things so ... " (Participant 4)

One participant felt that a teacher should be able to choose his or her involvement with learners with barriers:

"I think that's part of the big thing, too, is that teachers need to have a choice in the matter. So, if I'm a maths teacher or a science teacher and, really, quite frankly I haven't got time for somebody who can't keep up well I've got a choice to teach in a school like that too. In as much as the kids with barriers to learning have a choice as to where they want to be taught, I have a choice about where I teach ..." (Participant 7)

Another participant stated:

"... You're talking to us, who are actually interested, and we can't manage ... some people will say, "Well I'm here for a subject. I'm not here for special needs." (Participant 11)

Teachers had different views of their specific roles in an IE system. Participant 7 felt that the teacher in the IE system needed to access as many learners as possible:

"... because like there are different ways of learning – picture, oral and all those types of things ... I need to change my teaching strategies so that I can access as many people as possible. I can't look at that in terms of 'I need to access you!' (one individual). But, generally, with disabilities you are forced to use all the different aspects, which will help all the other kids anyway."

And self-improvement also seemed to be an important aspect for participant 7:

"I have a practical responsibility which comes more from improving myself as a teacher, you know. The inclusive education children kind of almost just force you to grow that little bit more ... But, that's not because I'm focusing just on you ... it's a 'you and everybody'."

Participant 4 felt that, for a teacher in an IE system, communication is very important, and that one of the practical aspects one needed to focus on in an IE system was the importance of different ways of communication with the learners.

"... it actually became so easy when there were more than two in the class. Then it wasn't the individual sms's. It would be more general and it would be rolled out to the whole class ... because I had to do it for more than two, then it's just as easy to just make a group on the sms web and just sending out to everybody instead of going looking for the child ..."

This also applies to the importance of communication with the team involved in the learner's programme:

"... it's my role to communicate better to parents, it's my role to communicate issues better to the guidance counsellor ... So, all the little practical things that we do in any case, as teachers ..." (Participant 4)

One teacher felt even influencing other teachers in a positive way was a very important role to play:

"But also, practically, I think it's an important thing to just be someone in the staff who's just positive about it in general. I mean, you know, there's a lot of 'Nyehe nyeh, nyeh, nyeh, nyeh' ... in the staffroom (I won't say who) and, you know, there's a lot of negative stuff that comes up all the time and to just not be part of it, not add your voice to it has an effect, I think." (Participant 4)

5.5.1.5 Teachers' perceptions of their readiness for inclusive education

The perceptions of the participating teachers in this study of their readiness to include students with diverse needs and barriers to learning were bleak:

"... in certain areas, I'm very ready and in certain I'm very not ... inclusive education, to me, is such a broad thing ...10% I feel very capable of dealing with and then there's 90 other things that could be thrown at me that I have no idea how to deal with, and I will "wing it" as we say ... and I will probably make it work and figure it out but that's not fair on me and on my private time and things like that, so ... I'm ready, but not ready." (Participant 4)

"Ek is nie skaam om te sê ek weet niks nie. Julle het 'n kursus gehad. Ek het niks en dit is ... dit gaan miskien op dowe ore val, maar, as daar genoeg mense sê: 'Ons het hulp nodig. Ons het leiding nodig.' Mag daar dalk êrens, by iemand 'n klokkie ... 'n Vaal klokkie, begin lui." / "I am not ashamed to say I know nothing. You attended a course. I had nothing and that is ... maybe nobody will hear, but if enough people say this: We need help. We need guidance. Maybe somewhere a bell ... a grey bell might go off." (Participant 8)

"I'm 1% ready! I really don't feel ready at all! ... the only thing that makes me ready is my willingness to have them in my classroom because my heart goes out to them and they're wonderful kids and I really enjoy them but it just kills me most lessons because I know that I'm not doing what they need ..." (Participant 7)

"... technically, I'm probably more ready than most ... having worked in a special school, but I don't feel emotionally ready for them ..." (Participant 11).

"... mens voel totaal onvoorbereid as 'n persoon daar instap. So ek wil, maar hoe? ... ons doen partykeer meer skade deur te probeer help ... maar oneffektief ... dan verstaan die ander kinders nog beter, maar hy verstaan dit nog slegter ... ek voel totaal onvoorbereid al het my kursus my tegnies voorberei" / "... one feels totally unprepared when a person enters. So I would like to, but how? ... we sometimes do more damage by trying to help ... but it is ineffective ... the other children understand better, but he understands even less ... I feel totally unprepared even though my course prepared me technically" (Participant 1)

"Ja, 'n mens voel maar soms jou hande is afgekap. Jy, um, weet nie hoe om die situasie te hanteer nie ... Ek wil net partykeer moedeloos raak – mens voel verskriklik incompetent omdat jy nie die toerusting het nie" / "Yes, one feels incapacitated. You um, do not know how to handle the situation ... I become despondent sometimes – one feels very incompetent because you do not have the equipment" (Participant 11)

5.5.1.6 *Inadequate training*

The adequacy of knowledge and training was an enduring theme among teachers in this study. Consistent with teachers in other IE settings (Brady & Woolfson, 2008; Forlin & Chambers, 2011; Horne & Timmons, 2009), the participants discussed the need for training in all the interviews: pre- and in-service training, as well as ongoing professional development.

The participants felt that they were not prepared at university level for the task at hand:

"... I got my PGSE, two years ago now, and we had one module of about six weeks which was just this 'special needs' ... that's one or two lectures a week ... we're looking really basic. So, we had like a couple of talks about general things ... not specific ..., and then we had to do a project where you could choose something ... a dyslexia or something like that ... but it was basically a pack of notes and it was zoom, gone ... It was like this (clicks her fingers) ..."
(Participant 5)

Participant 4 mentioned that the focus at education faculties at university regarding IE was skewed:

"... I was there ... six years ago and ... we had this beautiful module called 'Inclusivity in Education' and I aced it because it was all about the Apartheid! There was nothing about special needs at that stage. My whole inclusivity was about how to deal with different races in our classroom and ... I mean, I had grown up in a multiracial environment, and so I was okay ... I did not know about dyslexia unless I heard about it somewhere else ..."

"Diversiteit en inklusiwiteit was 'n vak. Dit gaan nou oor verduidelik vir julle hoe verskillende skole werk, gradering, hoe dit was en hoe dit moet wees, en so aan. Baie meer fokus op die gelykwording, nie op die individue nie. So die term inklusiwiteit was vir my gekoppel nie aan individuele inklusiwiteit nie. Dit was duidelik gekoppel aan groep gelykwording. Aan uniformisme ..." / "Diversity and inclusivity was a subject. It was about explaining how different schools work, grading, how it was and how it should be, and so on. Much

more focus on equalisation, not on individuals. So according to me the term inclusivity was not associated with individual inclusivity. It was associated with group equalisation. With uniformism ..." (Participant 1)

"... ek het daai tyd geswot en diversiteit en inklusiwiteit het gegaan net oor sosiale groepe ... en dis basies dit ... Jy's veronderstel om alles gelyk te maak ... ja ... al gaan dit 'n paar jaar vat" / "... I studied at that time and diversity and inclusivity was just applied to social groups ... that was basically that ... You are supposed to equalise everything ... yes. Even if it takes a few years ..." (Participant 5)

"I think this is something that must definitely be part of the training of teachers. I know that we did Educational Psychology but I think it should be a whole important emphasised section to make people sensitive to the possibility that they will have to deal with ... learning barriers of all kinds like Asperger's ... Just so that people know that it could be expected to be present in the school and, if they don't know enough ..." (Participant 6)

"... it's not so much a guinea-pig situation where [whispers] 'Look, there's an Asperger's child', but if they are then armed with the theoretical knowledge at least and they come for practical teaching and they encounter that, I think that will enrich their teaching tremendously." (Participant 6)

Myles et al. (2005, p. 13) state that, "As the person responsible for the education and behaviour management of all your students, including a child with AS, you must have a working understanding of AS and its associated behaviour."

There was evidence of three teachers' **educating** (step 1 of the six-step plan described in Chapter 3) themselves by attending workshops, seminars and making use of internet sources. Four participants attended staff development talks or received information documents about AS. Participant 4 explained:

"When his mom told me he had Asperger's I didn't really quite know what that meant ... And I went and researched it immediately the night before ... So then, from there onwards, I mean I've been to a seminar just last weekend; I've just Googled and figured out exactly what I need to do."

To the question of what role pre-service training played in their knowledge about AS, the applicants gave the following answers:

"Glad nie ... Ons het oor ADHD gepraat, maar nooit oor enige ander een nie"
/ "Not at all ... We spoke about ADHD, but never anything else" (Participant 4)

"Geensins" / "Not at all" (Participant 5)

"None" / "Nothing" (Participant 7)

"... as I said I am feeling very insecure, because of lack of training"
(Participant 9)

The participants mentioned the fact that workshops and courses were voluntary and had to be attended in their spare time:

"... I had to go and go on courses myself and I think that a lot of teachers don't do that and then we sit with kids in our classes that we don't know how to handle ... I don't know how to deal with one class that has four different types of barriers to learning ..." (Participant 4)

Participant 11 stated that special school training does not necessarily provide insight and tools to use in mainstream education:

"... we had in-house training every week, every Tuesday afternoon for three hours, and so we did fairly in-depth stuff ... So, we had a learner with Tourette's, so we learn Tourette's stuff. But that was at a special school ... I was there for 11 years! I got a lot of training but when I come into a mainstream school, most of that falls apart because it's a completely different environment. And I can tell you all fabulous things ... I've trained people in ADHD, but I know that I am not actually looking after the kid in my class who has ADHD as well as I possibly can ... And that kills me, because I know that I need to ..."

The participants felt that their specific knowledge of IE in general was very basic:

"Ek het een keer in my loopbaan van tien en 'n half jare, was daar 'n konferensie wat die Departement aangeoffer - 'n werkswinkel daaroor wat die

Departement daar aangebied het ... hulle het eintlik die teorie van inklusiewe onderwys bekend gestel ..." / "I once in my career of ten and a half years, there was a conference that the Department offered – a workshop about it that the Department presented ... they actually introduced the theory of IE"
(Participant 2)

Naicker (2006) states that teachers in South Africa have not been trained, but have been *orientated*, to inclusive education and to the Revised National Curriculum Statement Policy's goals and aims. Epistemology that "provides the conceptual tools to guide teachers to navigate the new educational pedagogy" (Naicker, 2007, p. 4) has been absent. This "has hindered the growth of knowledge about knowledge and conceptual developments, innovation, creative thinking and imagination" (Naicker, 2007, p. 4) of teachers. According to Naicker (2007, p. 4), teachers have been exposed to a week of "training or orientation", and he argues that theoretical frameworks and epistemological issues take longer to assimilate. If more time was spent on understanding knowledge that informs practices, teachers will be more successful and ready for IE, and they will be encouraged to move away from old practices. He concludes by stating: "If frameworks of thinking are ruptured and alienated learners and other resources provided, an inclusive system is possible in South Africa" (Naicker, 2007, p. 4).

5.5.1.7 Emotions

Emotional responses and markers were an enduring theme in the participating teachers' responses in this study. It would seem as though the participants experienced anxiety and stress, according to them because of the lack of resources and training. Participant 4 exclaimed:

"So, I was very anxious when I started (teaching the learner) and I was anxious for the whole two terms ..."

Participant 11 mentioned the added anxiety because of extra responsibilities teachers have:

"... because there's a huge anxiety. On top of your admin, here's another whole lot of more stuff that you need to do."

In some cases there even was a sense of despair:

"... then I think to myself I fail every single day. But you can't really think like that all the time and yes you might be 'Ah, you're so creative', or 'Oh, you've made that lesson so much fun', but, as you say, there's so many kids falling through the cracks ... feel really bad and, like, want to curl into a little ball and just cut my wrists and die ..." (Participant 4)

Participant 7 said:

"I've got a heart for learning disabled kid ... and I can't keep up with it, I can't keep up with it. I'm saying that right now. I have a heart for these kids, really passionate about them, but there's no ways that I can keep up with it."

In a study done by Daniels and Strauss (2010 p. 1392), the narratives of the participants contained examples of "growing negative, cynical attitudes towards their work". One of the contributing factors to such feelings was the fact that the WCED was experienced as unsympathetic and autocratic in their management style. In studies regarding the attitudes of teachers toward IE, similar themes emerged: sense of fear, concerned, stressed, frustration and anger have been reported (Avramidis et al., 2000; Chhabra, Srivastava & Srivastava 2010; Forlin & Chambers, 2011). Emotions that were identified in these studies that were experienced mostly by the teachers, but sometimes also by the identified learners, included anxiety, guilt, passion, despondency, embarrassment, wanting to 'flee', and feelings of inability to keep up, and of wanting to give up. This resonates strongly with the emotions mentioned by the participants in this study.

5.5.1.8 Teachers' knowledge of the characteristics of AS

Attwood (2007, p. 15) found that, during the assessment of adults who had been referred for possible diagnosis of AS, many answered that the first time they felt different was when they started school. He explains that the "diagnostic pathway" begins when an experienced teachers recognises the "obvious history of characteristics" and the unusual profile of abilities and behaviour" (Attwood, 2007, p. 15). He emphasises the fact that these teachers *know* that the child would benefit from support programmes, but they also *need* access to training, in-class support,

resources and expertise in AS in order to be able to facilitate successful social integration and academic success. He concludes by stating: "The child needs help *and* the teacher needs help." (Attwood 2007, p. 15) It has become evident that the teachers do not feel adequately trained (see theme 4.5.1.6), do not have in-class support (see theme 4.3.1.3) and there seems to be a lack of resources and specific expertise in AS in the schools (see theme 4).

Most of the participants seemed to have very basic knowledge of the characteristics of AS, but one or two participants seemed to have a better understanding than the others. This could be attributed to the fact that these specific participants attended workshops, had staff development sessions and taught at a school where there was a multidisciplinary team approach. From the responses to the open questions and during the interviews, the participants' confusion regarding the different terminologies or diagnoses in the field of Pervasive Developmental Disorders became clear:

Participant 7 candidly admits,

"I get confused between AS and autism. I don't really know all the differences between them and I often put them together as one. Autism being a kind of intense form of Asperger's (I know that's not a great way to do it. It is a lack of information that has resulted in that)."

In some instances it became clear that the participants' understanding of AS was based on their **experiences** with learners they had been exposed to, and not necessarily on fundamental knowledge about AS. Participant 10 explained that he/she did not "*know much*"; he/she only had knowledge because of:

"... the experience I had with one young female adult who had AS."

Differences in the answers of participants who had not received specialised training regarding AS was evident.

The total characteristics of learners with AS, reported by the group of participants, mirror some of the characteristics as described in the literature in Chapter 3. Even though the impression might be created of comprehensive knowledge, the reader has to bear in mind that this does not mean that all the participants have all the knowledge reported. Many of the participants referred to **social challenges** that

children with AS might experience: Participant 9 responded in the reflective questionnaire:

"I am not sure. Possibly learners who appear to be alienated, does not mix easily".

Whilst participant 3 responded:

"Only when comfortable with you will they engage with you ..." and "... the inability of a person to understand the social cues and social boundaries in the society they live in."

One of the participants who received training gave the following answer and referred not only to the social and communication challenges, but also to the challenges to interpret **abstract concepts** and **non-verbal language**:

"Kom soms voor asof in 'eie wêreld'/teruggetrokke/introvert. Onvermoë om sosiale situasies te lees. Onvermoë om figuurlike spraak of sarkasme te verstaan. Onvermoë om liggaamstaal en stemtoon te interpreteer..." / "Sometimes seems to be in 'own world'/retiring/introverted. Inability to read social situations. Inability to understand figurative speech or sarcasm. Inability to interpret body language and tone of voice ..." (Participant 2)

Attwood (2007, p. 11) states that "we can appreciate that a person with AS has difficulty knowing what another person may be thinking, or feeling", but emphasises how impossible it is for us as people "who mind-read relatively easily and intuitively" to understand how it affects daily living for individuals with AS". Participant 6 referred to **communication**, social challenges as well as challenges with **mindblindness**:

"... kan gewoonlik wel verbaal kommunikeer, maar is sosiaal lomp en tree dikwels onvanpas op weens 'n gebrek aan emosionele insig of intelligensie ..." / "... can communicate verbally, but is socially inept and often behave inappropriately because of a lack of emotional insight or intelligence ..."

Participant 6 also reported the inability to **understand social rules**, **long-windedness** and **preoccupation** with specific topics, **one-sided conversations** and

bluntness, and mentioned the alienating consequences of these challenges for the learner with AS:

"... tree dikwels onvanpas op in sosiale omstandighede ... mag dalk te hard praat, of nie agterkom wanneer sy gespreksgenoot die gesprek wil beëindig nie... Die inhoud van die gesprek mag ... irrelevant wees ... dikwels iets is wat hom interesseer of waaroor hy baie weet ... Die persoon mag 'n spreker voor 'n groep (soos 'n onderwyser) korrigeer" / "... often behaves inappropriately in social circumstances. ... may talk too loudly, or may not realise that the other person wants to end the conversation ... the content of the conversation may also seem random or irrelevant, although the person (with AS) may be very interested in it or know much about it ... The person may correct a speaker in front of a group (like a teacher) ..."

In other instances, the information given was correct, but it seemed as though the participant might not have realised what the physical signs of sensory and/or emotional 'overload' are. Participant 1 answered the question as follows:

"Maak nie oogkontak nie, staar soms in die verte, of kyk 'deur jou'." / "Does not make eye contact, stares into space, or looks right through you."

Participant 2 also referred to **preoccupation** and **sensory** issues experienced by individuals with AS:

"... sommige toon obsessiewe en kompulsiewe gedrag. Onvermoë om soms gedrag toepaslik tot 'n bepaalde sosiale situasie te toon. Soms 'n tipe sensoriese sensitiwiteit." / "... some shows obsessive-compulsive behaviour. An inability to behave appropriately in a specific social situation. Sometimes a type of sensory sensitivity."

Participant 3 referred to challenges in **academics** as well as challenges caused by difficulties with the **proprioception** system:

"Easily distracted, crossing social boundaries, invading your personal space in certain instances."

In the literature review in Chapter 3, the difficulties learners with AS experience to cope with mistakes, their **perfectionism**, **fear of failure** and their inability to shift their focus from errors made, are mentioned (Attwood, 2007).

Participant 10 recognised perfectionism as one of the characteristic of individuals with AS:

"Obsessiveness played a huge role in her not achieving at school. She would become obsessed with answering a question. Spend a lot of time on it, then heavily scribble it out and start again. Her scribes would encourage her to go to the next question, but she just couldn't. She would start the same question again and again, until somehow she managed to let it go and move on to the next one."

According to the literature, individuals with AS are **literal** and display **black-and-white** thinking (Attwood, 2007; Myles et al., 2005). This was evident in the responses of the participants in their understanding of the characteristics of an individual with AS.

Participant 5 referred to the **literal thinking** of learners with AS:

"Die seun waarmee ek in aanraking was, was redelik emosioneel en het enige opmerking/grappies ter harte geneem." / "The boy with whom I came into contact was rather emotional and took comments/jokes seriously."

Black-and-white thinking that leads to an almost naïve **honesty** was discovered by participant 7 in working with a learner diagnosed with AS:

"... something went amiss in the class and I thought he did something naughty and I asked him straight out and he told me, honestly, the truth and I was like, wow! Cause I didn't know, so I was like 'Thanks'. You just expect them to go no, no, no, no. That was like, okay, something's different, which is awesome. Um, so, try not to abuse that power ..." (Laughs)

Individuals with AS experience **challenges with executive functioning** (Attwood, 2007; Darretxe & Sepúlveda, 2011; Myles et al., 2005). The following was reported by participant 10:

"She just couldn't settle down to do work and her assignments were often handed in terms past the due date, after much cajoling, encouraging, forcing her to sit down to work, etc."

Attwood (2007, p. 143) states that the "person with AS and family members are very keen to reduce the frequency, intensity and consequences of anger". He also suggests that the emotional maturity of children with AS is usually three years behind their peers. Reference has been made by the participants to the external manifestations of **emotion** as exhibited by learners with AS. These individuals were not necessarily equipped to manage these behaviours. Reference was made to *"Moontlike uitbarstings. Woede, geluide, ens."* / *"Possible tantrums. Anger, noises etc."* (Participant 8); *"Reageer baie vinnig indien gestimuleer ...Tekort aan selfbeheersing ..."* / *"Reacts very quickly when stimulated ... Inadequate self-control"* (Participant 1)

Participant 5 wrote:

"Dit het voorgekom asof hy nie weet hoe om sy emosies te hanteer nie." / "It seemed as though he could not handle his emotions."

Again, it was clear that the information offered regarding the characteristics of learners with AS was based on the specific participant's experience with a specific learner.

"Kan luidrugtig wees en totaal en al uit plek optree, kan ook baie stil wees en net soms totaal vreemd optree (soos skielik begin huil, of lag)." / "Can be very loud and behave totally inappropriate, can also be quiet and at times would behave totally strange (for instance would suddenly start crying or laughing)."
(Participant 5)

Cumine et al. (2010, p. 290) agree with Hans Asperger, who felt that schooling would be valuable for individuals with AS, but they emphasise that for support and intervention to be effective they must be grounded in an "understanding of the nature of the condition and its fundamental impairments". The above evidence of the participants' knowledge regarding the characteristics of AS indicates that their

knowledge was sketchy and vague at times, incomplete and mostly based on experience with one learner.

5.5.1.9 Teachers' knowledge of intervention and support strategies for learners with AS

A question was posed to the participants regarding 'the most important aspect that you've taken into consideration when you heard that a learner with AS will be included in your classroom?' It was apparent that one of the participants who attended training, after the initial questionnaires have been completed, had a better understanding of the support strategies for AS. The specific participant shared her new knowledge with her fellow teachers and therefore added to their knowledge as well. It seemed as if most of the teachers did not have a notion of support strategies as part of their working knowledge.

Participant 7 expressed an awareness regarding the difficulty learners with AS experience with **group work**, which relates to their challenge with socialisation, and therefore made adaptations in order to accommodate this need in the following way:

"... and when we're busy setting up for groups and you say, 'Right we need to get into groups' or 'I'll choose the groups' or 'Everyone get into a group' and then just go up to him and say, 'Won't you go and join that group, please?' Because he struggles to get in with groups ..."

Even though there was no evidence of **social skills training** in any of the schools, participant 6 had knowledge of the fact that social skills training can be useful to support a learner with socialisation challenges:

"Met die nodige hulp kan hulle egter sosiale gewoontes aanleer ..." / "With the necessary help they can learn social habits ..."

Participant 2 suggested an awareness of the literal and black-and-white thinking of learners with AS and the **adaptation of their communication** with the learner with AS:

"... jou kommunikasie wat jy moet aanpas ... met konkrete taal ... baie letterlike taal wat jy moet gebruik." / "... Your communication needs to be

adapted ... with concrete language ... very literal language which you must use."

Participant 4 explained how literal thinking can affect the way learners interpret **instruction**:

"... every single time is, when I write name and surname at the top, when I tell them what to write at the top of the page for an essay or whatever and I write okay Essay, dah dah dah, dah dah dah. Write down Afrikaans, grade 8, and then name and surname. And every time he's one of the ones that writes name, and surname unless I go to him and say remember, you must write your name and surname ..."

Participant 4 specifically mentioned the adaptation and awareness of language challenges when giving instructions:

"So, it's all those little, little, little things. Language skills, so I think if it comes down to structural, practical management, um, noticing would be my other main one and then just language use in terms of instruction ..."

Specific **academic** considerations were evident in the practices of some of the participants. Participant 4 understood the importance of adapting and modifying tasks by breaking them down:

"So, breaking things down so that he's able to actually follow along ..."

Participant 4 reported on how to **adapt instructions** to accommodate the learning style of the learner with AS, namely by giving instructions in a sequential manner:

"Like, I'll say the instruction to the class and then I'll think, I'll just say it again ... slowly, and step by step and I'll say it much more like, so "Write ... your ... name ... on ... the ... page ... everyone ... now." And then you can kind of look towards him as well to, sort of, check that he's with you."

Participant 7 realised the importance of giving **explicit** instructions:

"... if you see him going red or things ... But it was tough, like, I had no idea! Like you told me that you actually need to say to him "You can come and

... speak to me if you ..." You know, he needs permission to do that. Now, I have no idea about that, so I did that ..."

The challenges that learners with AS experience with executive functioning have been explained (Attwood, 2007; Cumine et al., 2010; Stevenson & Weinfeld, 2007). Participant 6 explained how a learner with AS had been supported with **planning**, **decision making** and the initiation of action:

"... be very vigilant about, you know, him writing things down and making sure that he takes the notes and actually puts them in his books ... You know that his organisation ... was one adaptation ... to make absolutely sure and to focus on him for that moment and to make sure that writes down, that he puts away and that he doesn't lose things easily and that kind of thing."

According to the literature (Attwood, 2007; Myles et al., 2005), individuals with AS exhibit problems with fine motor and writing skills. One participant reported adaptations made to support a learner with AS who experienced difficulty in **copying notes** from the board:

"Ma'am when it comes to the writing from the board ... I really struggle to do that ... can you please copy it for me?" So I now know, so I usually give him my master copy ... whatever spelling words or work we're writing down from the board and I would give him on paper and he actually goes home and he copies it ..." (Participant 4)

As explained in the literature (Myles et al., 2005, pp. 13-22) in Chapter 3, the 6-step plan is a useful tool that teachers can use to prepare themselves for the entrance of a learner with AS into their classes. There has been some evidence of the steps "educate yourself, reach out to the parents", as discussed earlier. "Educating peers", (and promoting social goals), and "collaborate on the implementation of the educational programme", were not evident in any of the schools, as discussed earlier. "Management of behaviour challenges" (Myles et al., 2005) was evident in one school in particular, and there was some evidence of it in another school. There was minimal evidence of teachers' "preparation of the classroom" to support the learner with AS.

Myles et al. (2005, p. 17) emphasise the importance of "organizing your classroom appropriately" (step 3). One participant mentioned:

So, I mean there are a lot of things that I've had to do practically-wise ... but there's a variety of things that I use every day in order to make him feel okay and not frustrated ..." (Participant 4)

Another participant mentioned **preferential seating** as an important factor:

"die plek waar jy hom sit is belangrik" / "the place where you seat him is important" (Participant 6)

Myles et al. (2005, p. 20) agree with other authors (Attwood, 2007; Cumine et al., 2010; Silverman & Weinfeld, 2007) that many learners with AS "view the school as a stressful environment". Myles et al. (2005, p. 20) give examples of these stressors, which could be "ongoing and of great magnitude", namely difficulty in the prediction of events because of changes in the school schedules; understanding and "tuning into" the teachers' instructions; interaction with peers and "anticipating changes, such as classroom lighting, sound/noises, odors ...", and propose that these **behaviours** can be managed (step 6).

Myles et al. (2005) agree with other researchers (Attwood, 2007; Cumine et al., 2010) that there sometimes is subtle behaviour or physical signs that indicate a possible behavioural outburst, for instance a learner will "tune out" and will not blink and just stare, because of neurological overload.

Participant 6 reported:

"Sometimes when pressure mounted on him, he would just bomb out ..."

Participant 7 mentioned the physical signs that could indicate sensory and/or information and/or emotional overload for one specific learner, but also that it was difficult to recognise it before someone pointed it out:

"... if you see him going red or things ... But it was tough, like, I had no idea!"

Participant 4 added:

"Ma'am, I'm, I'm really ..." and I could see it in his face, it was red, ja, red and angry and ja, like this face (pulling an angry face) ..."

In these instances, a teacher who had a working knowledge of the characteristics of AS would be ready to implement some support measures to prevent a 'blow up'. Participant 4, who had attended training recently, made many different suggestions on how to manage the behaviour of learners with AS effectively. One of the measures taken was **preparing** learners with AS for **change** in order to prevent stress and consequential meltdowns:

*"... very often at our school ... the whole timetable changes ... for an Asperger's child, it's very confusing to have that sudden change like (takes a deep breath) "What now? Like, where?" and so ... I would **call him aside** before I actually go into the classroom and I would explain it to him and I would **write it down** for him and I'd say this is the lesson that you have today and this is how it works ..."*

Sensory breaks or time outs to regulate and manage behaviour outbursts were also used by this particular participant to manage the behaviour of learners with AS:

"I had to call him, the very first day, I said to him ... that if he feels overwhelmed or if he feels like he's going to blow his top because he gets aggressive with somebody because they're yapping or whatever ... he should come and tell me ... and I would just say 'Ok, here's your out of class pass card. Walk around and just chill.' And he would go for a walk and he would come back and he would be absolutely fine." (Participant 4)

As can be seen, the responses regarding knowledge of support strategies emanated mainly from Participant 4, who was the one who had attended a training workshop specifically on AS. It seemed as though the theoretical knowledge gained led to the creative implementation and transfer of knowledge. This improved the support strategies that could be employed in the classroom. In the light of the other participants' reticence with regard to support strategies, it strengthens the deduction

that training and theoretical knowledge are necessary to equip teachers to support learners with AS in the classroom.

The above-mentioned subthemes, namely paradigm shift, teachers' willingness, ownership, roles and responsibilities, perceptions of own readiness training, emotions, knowledge of AS and knowledge of support strategies were grouped together to constitute the theme 'teacher readiness'.

5.6 PEERS' UNDERSTANDING AND ATTITUDES

A theme that emerged during all the interviews was the perceptions of the teacher participants that other learners were not ready for the inclusion of learners who experience special barriers. Participant 7 stated:

"They (peers) can handle physical disabilities and things that look different, but as soon as there's a hint of an, emotional, a mental or learning, something where they're not as bright, and that's what it looks like, they nail them ... you see it at break ... I hate it! I hate watching it ..."

The teachers also felt that an inclusive system isolated the learners with barriers to learning.

"They sit in the quads; right by the staffroom ... they're most protected there. They're by themselves or they just stick together with the other kids who are learning disabled ... Or near the library ... It's absolutely terrible ..."
(Participant 11)

It seems as though the reactions of the peer group to learners with AS (or learners experiencing other barriers) were emotionally difficult for the teachers. They experienced emotions of sadness having to witness it.

Myles et al. (2005) agree with other researchers (Attwood, 2007; Cumine et al., 2010, Stevenson & Weinfeld, 2005) that **peers should be educated** (*step 4 of the 6-step plan discussed in Chapter 3*) regarding the common traits and behaviour patterns of AS, and that specific **social skill training goals** should be set in an IEP and implemented for the learner with AS. Myles et al. (2005, p. 18) state that "research shows that typically developing peers have more positive attitudes, increased

understanding, and greater acceptance of children with AS when provided with clear, accurate, and straightforward information about the disorder".

It has been demonstrated that a learner who does not understand the characteristics of AS might act negatively toward the individual:

"... as it were, weird for the other pupils in the class so they wouldn't always be as respectful of him and his comments as they might have been or should've been and part of the problem was that they didn't always understand him socially, as well." (Participant 6)

Even though there was no evidence of peer mentoring or social skills training among the participants' responses, it was mentioned by some participants as being important:

"... jy moet jou klas gereed hê ... om jou klas ook meer voor te berei, as hulle nie die volwassenheid het nie ..." / ... you must prepare your class ... to prepare them if they do not have the maturity ... (Participant 6)

"So, the influence on me there was to make sure that one accommodates him, that you don't dismiss him, you don't refuse him the opportunity of taking part, but that you also, uh, kind of set the tone of the whole class of how you accept his contribution and interpret and respond to it and link it to the discussion and so on." (Participant 6)

The teachers felt they had to model the acceptance and accommodation necessary.

However, even though the participants seemed to be sympathetic towards learners who experienced barriers to learning, it was clear in their responses that most felt it was unfair towards the other peers in the class to only adapt to the needs of the learners experiencing barriers to learning.

"... as a teacher, we've got to look at all the kids in the classroom. So just because I've got a child with a barrier to learning, I can't say well I'm going to have to go at the speed of that child, to the detriment of my more gifted learners ... I don't think that's fair. Any more than it's fair to have a group of

very, very, very gifted children with mediocre children – I mean IQ-wise."
(Participant 7)

Participant 5 stated:

"Een so 'n persoon belemmer dertig ander, indien hy leer halt. Want geen onderwyser met 'n gewete kan aangaan voordat almal nie by is nie ... Maar jy halt almal en jy kan nie aangaan nie ... Dis 'n groter onreg wat jy aan die ander aandoen ... as jy vir hom die aandag gee wat hy verdien". / One such person hampers thirty others, if he stops the learning. Because no teacher with a conscience can carry on until everybody understands the work ... But you stop everyone and you cannot carry on ... It is a greater injustice to the others ... if you spend the attention to him which he deserves."

The value of fairness and the role of the teachers' conscience can be added to the subtheme of paradigmatic values and shifts previously discussed, as ingrained values have an important impact on teachers' practices.

Lack of resources and planning negatively affect the teachers and the learners. In a specific example, the peers of the learner experiencing a barrier had to take responsibility to carry her around and that caused a negative and avoidant attitude among the peers:

"Three quarters of the time the lesson would start 10 or 15 minutes into it because we were waiting for the boys ... didn't find anyone to help carry her up the stairs or ... and it wasn't fair on the kid (with the barrier) ... the kids (peers) also aren't happy about lugging her up and down and so they disappear because, well, they don't want to ..." (Participant 11)

It would seem that evidence existed in all three schools that the peers have not made the required paradigm shift towards IE either, which places more responsibility on the teachers to have a positive effect on the successful implementation of IE practices.

5.7 CONCLUSION

In this chapter the findings of this study were presented. Seven themes emerged from the analysis. The themes referred to political factors, paradigmatic values, the role of the Department of Education, school support practices, resources, teachers' attributes, and the role of peers. Each theme was discussed in detail, along with the subthemes within each category. By looking at the four themes closely, one can see a clear picture regarding the readiness of teachers for inclusive education in general, and consequently their readiness to include learners diagnosed with AS in the mainstream school.

In Chapter 6 I shall provide a concluding discussion of the findings in order to address the research questions. Limitations and strengths of the study will be addressed, as well as recommendations for further research in this field, and for supporting teachers in the implementation of IE.

CHAPTER 6

CONCLUDING REMARKS, RECOMMENDATIONS, LIMITATIONS AND STRENGTHS

6.1 INTRODUCTION

This research study aimed to gain insight into the readiness of high school teachers in the Western Cape to include students diagnosed with AS in the mainstream education system. A basic qualitative study founded in the interpretive research paradigm was used to approach the research question. This research process provided the researcher with insight into the meaning-making process of the participants, thereby allowing an understanding of teachers' readiness for inclusive education, and consequently to include and support learners with AS. Bronfenbrenner's bioecological model (Bronfenbrenner, 1979; Bronfenbrenner, 1994; Bronfenbrenner & Evans, 2000) and the nested systems idea (micro-, meso-, exo- and macrosystem) have been **used as a framework in which to present the findings**. As discussed in Chapter 2, readiness for IE does not only pertain to the individual teacher and school system (micro- and mesosystem), but also readiness within the education system (exosystem) and social system (macrosystem). The findings of this study seem to form a pattern that mirrors Bronfenbrenner's theory regarding the different levels of the system, and therefore could be presented according to 'readiness' in all the systems.

This chapter will offer concluding remarks on the main research findings, discuss recommendations, reveal the limitations and strengths of the study, and formulate suggestions for further research. The concluding remarks will be discussed with reference to Figure 6 (Representation of the findings in terms of a theoretical framework of a bioecological approach).

6.2 CONCLUDING REMARKS

According to the bioecological model, system change is a complex matter, and change in one part of the system (e.g. the Education Department or the school system) will directly influence other parts of the system. These proximal processes, described as the "engines of development" by Bronfenbrenner and Evans (2000, p. 118) and summarised by Swart and Pettipher (2011, p. 12) as processes that are understood as leading to different kinds of change and thus development in an individual, seem to have certain effects on an individual. Bronfenbrenner and Evans (2000) referred to these developmental changes as either competence or dysfunction. In this study, however, the effects of proximal processes would not be such a dichotomy, but rather a continuum of 'readiness' for the implementation of IE. Proximal processes therefore have "the power for actualizing genetic potential for effective functioning ... they are guided and fuelled by the characteristics of the person and the context" (Bronfenbrenner & Evans, 2000, p. 118). Another important aspect of proximal processes as postulated by Bronfenbrenner (in Bronfenbrenner and Evans, 2000, p. 118) is that, for these interactions to be effective, the extent of contact (*Corollary la Exposure*) maintained is important; interactions must occur "on a regular basis and over extended period of time..." (Swart & Pettipher, 2011).

Here I refer to Section 2.5.2, Figure 3 in Chapter 2 for a graphic presentation of these processes and their effects.

Taking the abovementioned postulations into consideration, it is clear that the question asked, 'How ready are teachers to support and successfully include learners with AS in their classes?' is a complex matter, because it seems as though teachers' readiness (micro-level) is directly affected by the readiness of school systems (mesosystem), the Department of Education (exosystem) and the social system (macrosystem). Furthermore, the extent of the contact between the individuals within the different systems, as well as between the systems, will have a direct effect on the readiness of the teachers. Therefore, the proximal processes between all these systems and within the systems (**context**), as well as the teachers' attributes (**characteristics**), will affect the teachers' readiness. In the findings it became evident that 'barriers to inclusive education' exist on all the levels in the education context (Western Cape, South Africa) in which the participants support learners with

AS. These 'barriers to IE' directly affect teachers' readiness to include learners with AS in the mainstream classes.

On the **macrosystem level**, which forms the outer level of the nested systems, barriers to IE are evident. They permeate through all the other levels in the education context of this study. It is evident, as discussed before, that the "South African policy regarding inclusion ... stopped short of a pedagogic revolution and is stuck at a political level since it ignored epistemological issues in the training of educationists" (Naicker, 2007, p. 2). Furthermore, the stormy political issues in South Africa at the time (chronosystem) when IE was introduced, and in the years thereafter, influenced the way teachers perceived any changes implemented by the government. It seems as though the participants do not trust the government, and therefore believe that IE is doomed to fail.

In addition to this, it seems as if the perceptions of IE of the participants in this study have been confused by the fact that the formulation of the Salamanca Statement (1994) and the first democratic and free elections in South Africa occurred in the same year, namely 1994. Most of the participants had not heard of the Salamanca Statement, and the preceding worldwide paradigm shift from a medical model to a social model, which informed it. They were not aware of the worldwide consensus on the direction of special needs education and the 'human rights' argument for movement towards 'Education for All' (UNESCO, 1994). In the light of this, the participants might not trust any information offered to them (voluntary) to enhance their knowledge about change that they do not 'buy into' and 'do not trust'. The participants' paradigmatic values, which include their notions about social justice and human rights, as well as their understanding of a barrier to learning, have been affected by macro-systemic perceptions, knowledge and action taken to implement IE. Indirectly, these notions also influence the proximal processes between all the nested systems and, in this study specifically, teacher readiness to support learners with AS.

Simultaneously, the **exosystem** has been influenced directly by macrosystemic factors regarding readiness and the implementation of IE principles. The participants (microsystem) experienced constant pressure to perform and implement IE principles in their classes. They felt that the DoE/DoBE (exosystem) did not prepare them

adequately for the task at hand, and did not provide the needed resources. Policies were implemented that departmental officials did not fully understand, with no practical solutions for implementation. In the light of the proximal processes, this ineffectiveness at the interface between the exo- and microsystem makes it clear that the readiness of teachers for the successful implementation of IE, in general, is compromised.

On the **mesosystem level** it seems evident that the lack of existing support practices in the schools, as well as the resources available to support the participants in their positions, directly influenced the proximal processes taking place between the macro-, exo- and mesosystems. The fact that principals and school management seem not to understand their important role in the IE process with regard to collaboration, professional development and the creation of a supportive, caring community might be a direct effect of the abovementioned barriers to inclusion in the macro- and mesosystems.

On the **microsystem level** there have been pockets of evidence of changing paradigmatic values and beliefs, a willingness (disposition) to implement inclusive practices, and ownership taken for the student with AS, as well as other students who experience barriers to learning (ecological resources). These dispositions or attitudes are being complicated by the resources available in the schools in terms of time, necessarily physical structures, funding as well as class sizes. This is complicated even further by the support practices used in the different schools, the lack of training provided by all the systems and the constant pressure to perform and implement IE practices. The barriers to IE in all the systems' macro-, exo- and mesosystem levels affect the teachers' readiness directly. As a result, the teachers' knowledge of IE, as well as of AS, and the support and intervention strategies needed in the classroom, were insufficient. The outcomes to which the proximal process have led are feelings of "dysfunction" instead of "competence" (see Figure 3 in Section 2.2.6), in the words of Bronfenbrenner and Evans (2000, p. 118). The teachers do not have *skills and knowledge in advance and are not able to go over into action without effort* (according to the postulation of readiness in Chapter 2). The participants' feelings of not being 'ready for IE' led to feelings of anxiety and stress, and above all of being failures as teachers.

For a graphic summary of the findings on the different system levels, see Figure 6.

An example of the powerful positive effect of proximal processes can be illustrated firstly by the instance where one teacher (with a positive disposition) shared specific information received from the parents (teacher-parent relationship) of a learner with other teachers (teacher-teacher relationship) involved in his team. This had a positive effect on, and enlightened, the other teachers in a positive way, and had a mobilising influence on the proximal processes. It also seems as if the school (mesosystem) with a student support unit (teacher-professional relationship) had a positive effect on the knowledge base of the one teacher involved. Involvement with the learner (teacher-learner relationship) had taught the teachers how to engage with a learner with AS in a more efficient way.

According to the National Strategy on Screening, Identification, Assessment and Support (SIAS) document, which forms part of the implementation of the White Paper 6 (Department of Education, 2001), institution level support teams (ILST) are to be implemented in schools to assist teachers with learning support, but in two of the participating schools the counsellors were responsible for this role.

It therefore became clear that, among the participants in this study, there was no clarity about the specific role that counsellors have in the IE process regarding the inclusion of learners who experience barriers to learning. The importance of administration and the principal in the collaborative process has not been evident either. It seems as if the participant teachers' perceptions were that they were responsible to provide all the above-mentioned supports, and address barriers to learning, without any specialised training and support from other professionals and the school principal, who should form part of the support team/multidisciplinary team as in countries like Canada, the USA and Australia.

6.3 RECOMMENDATIONS

As the inclusion of learners with AS is still a relative new practice in South Africa, research in this field is very much needed. In one of the participating schools with a support unit in place, two learners diagnosed with AS had left the school because they could not cope and did not feel supported. In the light of the findings of this

study, several reasons for this phenomenon could be offered, but lack of knowledge and insight into the best inclusive practices for a learner diagnosed with AS could have contributed. In my search for participants to take part in the study, a few schools mentioned that they had previously enrolled learners diagnosed with AS, but that they could not offer the learner sufficient support in the school. I therefore recommend training of teachers with regard to knowledge of and insight into support practices specifically for children diagnosed with AS. The training of principals is highly recommended, specifically in-depth training regarding the philosophy and theoretical principles of IE. It is also important to define or redefine the role a principal needs to play in the IE process.

The roles of the Learning Support Teachers could be redefined as well for them to become the 'team managers' of the Institutional Level Support Team (ILST). These professionals can thus consult and collaborate with teachers, administrators (including the principal and vice-principals who attend team meetings), parents and other professionals and agencies to support the learners' success. Through their professional training, learner support teachers can offer specific knowledge and strategies regarding student diversity and represent a coordinating link between staff.

The participants made the suggestion that training should be provided during school time: *"... have a day where you take the teachers and you say "No teaching today" ... We take the whole day and we spend that whole day working on various things (barriers to learning) that are in our school. So, your ADHD, your Asperger's ... small groups ... you move all around the little ones (groups) and then you learn ... The only time you're going to get people to actually pay attention ... They're only going to bother if it's during school time ..."*

I would also like to recommend that collaboration needs to be defined, deconstructed and understood in all the schools. This will contribute to overall and mutual understanding of the specific roles of all the team members within an IE system.

6.4 LIMITATIONS OF THE STUDY

The study has certain limitations that need to be taken into consideration in future research.

Even though the qualitative methodology used in this design allowed for very rich descriptions, the study was limited in the extent to which it could be generalised to other South African teachers. A larger, more comprehensive and similar study comprising a wider range of school contexts, as well as more diverse teacher participants, might have provided more transferable findings.

Another limitation is that the voices of learners diagnosed with AS and their parents were not heard regarding their perceptions of teachers' readiness to include learners with AS in mainstream classes.

A research journal in which the research process was noted, could have assisted the researcher to draw conclusions regarding observations during the research process, which could have given better insight into the participants' dispositions and demand characteristics.

A final limitation is the researcher's inexperience in asking questions during semi-structured interviews. Consequently, opportunities for clarification, exploration and gathering more rich information regarding the dispositions of the participants, as described in the literature in Chapter 2, might have been missed.

6.5 STRENGTHS OF THE STUDY

The in-depth insights gained into the perceived readiness of the teachers regarding IE in general, and learners with AS specifically, can provide important information that can guide the DoBE to support not only all the principals of the schools, but also the teachers.

One school mentioned specifically that the focus group has been an insightful practice regarding collaboration, and how effective it was to get together as a group of teachers involved with a specific learner and to share their concerns and breakthroughs. It was obvious from both the focus groups and the individual interview that teachers have a need to reflect, share and discuss their frustrations regarding IE practices in collaborative ways. They also expressed the hope that someone in the DoBE would "hear their cries".

6.6 FURTHER RESEARCH POSSIBILITIES

Not much research has been done on the theoretical aspects of AS in South Africa; therefore most of the valuable resources used in this study were international literature. Very little research has been done on the inclusive practices needed specifically for learners with AS in South Africa. Despite the fact that more learners with AS are being included in mainstream schools, the teachers in this study still had little knowledge of the characteristics of AS and how to support learners diagnosed with AS in the mainstream classroom. Therefore, research into the most effective ways of enabling teachers to support children with AS will also make important contribution.

Following from the findings of this study, studies on a larger scale could be carried out to assess teachers' knowledge of AS, as well as their knowledge of best practices for support in mainstream classes in South Africa. It would also be useful to explore the successful mainstream practices already used by teachers in South Africa who have learners with AS in their classes.

A study exploring the experiences of learners diagnosed with AS in mainstream high schools, might contribute to a more in-depth understanding of ways that teachers can provide appropriate support.

6.7 MY OWN BACKGROUND AND EXPERIENCE OF THE RESEARCH PROCESS

In 1995 I moved to Canada, where I worked as a student support teacher/special education teacher in a functional IE system. At first I was very sceptical about this so-called IE philosophy, but soon 'bought into the concept' and realised the benefits of IE. I also had the privilege of being the case manager for at least a dozen learners diagnosed with AS who were included in a mainstream school. This placed me in a position where I knew what it took to specifically support students with AS in a mainstream school. My experience of IE was that it led to learners (or students as they are called in Canada) becoming contributing citizens who add value to the community system as a whole. I experienced how proximal processes, in terms of their duration, frequency, intensity and timing, could lead to competence in all

participants. The relationships between learner-learner, teacher-learner, teacher-teacher, teacher-parent, school administrators-teachers, principal-school board, school-board-department of education, etc. were enhanced and therefore added to competence on all levels. It was only during my current studies, when I was exposed to the fundamental principles of IE and the paradigm shift from a medical model to a social model, that I came to the realisation that I had already made the shift needed for IE, and could now understand the theoretical framework of IE much better.

During the research process I was very aware of the effect that my prior experience could have had in terms of bias towards the participating teachers' implementation of IE principles. During the interviews I shared my position as a teacher who had not lived in South Africa for 16 years and therefore had no first-hand experience of IE in this country. I shared with the participants that I was truly interested in their experiences and thoughts, with no preconceived perceptions.

I have to admit that my way of thinking about teachers' positions in the IE system in South Africa changed considerably during the research process. I now understand and empathise with the participating teachers. I agree that they are not necessarily specialists in assisting learners who experience barriers to learning like AS. I understand why they do not feel ready to support learners with AS in their mainstream classes.

In Canada I worked as a student support teacher (SST) under the direction and general supervision of the school principal. An SST consults and collaborates with teachers, management, parents and other professionals and agencies to support student success. Through their professional training, SSTs can offer specific knowledge and strategies regarding student diversity and represent a coordinating link between staff. My role as an SST therefore facilitated an understanding that a missing link in the participating schools might be the absence of SSTs or coordinators who are trained in learner and teacher support, and who only play that one specific role in the school.

Therefore, my experience of the successful implementation of IE principles in a mainstream school, and specific experience of supporting learners with AS, helped me to hear and understand subtle and sometimes seemingly unimportant aspects necessary for the inclusion of a learner with AS.

6.8 CONCLUDING REFLECTIONS

This study took the form of an in-depth analysis of the readiness of high school teachers to support learners diagnosed with AS in mainstream schools in the South African context. The results of the study suggest that the teachers had limited knowledge and training in this area. Furthermore, the results also suggest that most of the participants in this study did not perceive themselves, or the school system in South Africa, as being ready to include and support learners with AS in mainstream classes. Consequently, this has led to feelings of failure, anxiety and being overwhelmed. These feelings were caused by the accumulative effects of the broader system not being ready for IE, and therefore, more specifically, for the inclusion of learners with AS.

An unpredicted/unplanned/unexpected outcome of this study suggests that if teachers are not ready for the inclusive practises expected from the IE system, this would affect the inclusion of all learners who experience other barriers, besides AS, in the mainstream school system.

It is hoped that this study has highlighted the complexity of the inclusion of learners with AS in mainstream schools. An effort also was made to highlight the need to assess all the variables, as well as the importance of collaboration and specific inclusion practices to support a learner with AS in the mainstream school.

I do believe that change is a continuous process of circular causality. Even though the results of this study have shown that the participant teachers were not ready to support learners with AS within the mainstream school, there was willingness, some compassion and a change of heart, as well as pockets of skills and knowledge. I believe that readiness is yet to come. As Shakespeare wrote:

"There's a special providence in the fall of a sparrow. If it be now, 'tis not to come; if it be not to come, it will be now; if it be not now, yet it will come: the readiness is all."

William Shakespeare, Hamlet

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ADDENDUM A

LETTER GRANTING ETHICAL CLEARANCE FOR STUDY FROM STELLENBOSCH UNIVERSITY



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

Approval Notice New Application

31-May-2012
SPIES, Hannelie Lehome

Protocol #: DESC10/2012

Title: Teachers' readiness to support children with Asperger's Syndrome within a mainstream school

Dear Ms Hannelie SPIES,

The **New Application** received on **23-Mar-2012**, was reviewed by Research Ethics Committee: Human Research (Humanities) via Committee Review procedures on **02-Apr-2012** and has been approved.
Please note the following information about your approved research protocol:

Protocol Approval Period: **26-Apr-2012 - 25-Apr-2013**

Present Committee Members:

Fouche, Magdalena MG
Van Wyk, Berte B
Moertel, Paul PJ
Hansen, Leonard LD
De Villiers, Mare MRH
Hattingh, Johannes JP
Theron, Carl CC
Somhlaba, Ncebazakhe NZ
Bitzer, Elias EM
Engelbrecht, Sidney SF
Van Zyl, Gerhard G

Standard provisions

1. The researcher will remain within the procedures and protocols indicated in the proposal, particularly in terms of any undertakings made in terms of the confidentiality of the information gathered.
2. The research will again be submitted for ethical clearance if there is any substantial departure from the existing proposal.
3. The researcher will remain within the parameters of any applicable national legislation, institutional guidelines and scientific standards relevant to the specific field of research.
4. The researcher will consider and implement the foregoing suggestions to lower the ethical risk associated with the research.

You may commence with your research with strict adherence to the abovementioned provisions and stipulations.

Please remember to use your **protocol number** (DESC10/2012) on any documents or correspondence with the REC concerning your research protocol.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:

Please note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required.
The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) number REC-050411-032.

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant parties. For approvals from the Western Cape Education Department, contact

Dr AT Wyngaard (awyngaar@pgwc.gov.za, Tel: 0214769272, Fax: 0865902282, <http://weed.weape.gov.za>).

Institutional permission from academic institutions for students, staff & alumni. This institutional permission should be obtained before submitting an application for ethics clearance to the REC.

Please note that informed consent from participants can only be obtained after ethics approval has been granted. It is your responsibility as researcher to keep signed informed consent forms for inspection for the duration of the research.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 0218089183.

Included Documents:

DESC FORM

DESC RECOMMENDATION

RESEARCG PLAN SUMMARY

Sincerely,

Sidney Engelbrecht

REC Coordinator

Research Ethics Committee: Human Research (Humanities)

Investigator Responsibilities

Protection of Human Research Participants

Some of the responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.
2. Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use. If you need to recruit more participants than was noted in your REC approval letter, you must submit an amendment requesting an increase in the number of participants.
3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.
4. Continuing Review. The REC must review and approve all REC-approved research protocols at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, **it is your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in REC approval does not occur**. If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.
5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.
6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouch within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the RECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.
7. Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research protocol and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC
8. Reports to Sponsor. When you submit the required reports to your sponsor, you **must** provide a copy of that report to the REC. You may submit the report at the time of continuing REC review.
9. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.
10. Final reports. When you have completed (no further participant enrollment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the REC.
11. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

ADDENDUM B

**PERMISSION TO CONDUCT STUDY FROM THE
WESTERN CAPE EDUCATION DEPARTMENT**

Audrey.wyngaard2@pgwc.gov.za

tel: +27 021 476 9272

Fax: 0865902282

Private Bag x9114, Cape Town, 8000

wced.wcape.gov.za

REFERENCE: 20120424-0031

ENQUIRIES: Dr A T Wyngaard

Ms Hannelie Spies
Educational Psychology
Education Faculty
Stellenbosch University

Dear Ms Hannelie Spies

**RESEARCH PROPOSAL: TEACHER'S READINESS TO SUPPORT CHILDREN
WITH ASPERGER'S SYNDROME WITHIN MAINSTREAM SCHOOLS**

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.

3. You make all the arrangements concerning your investigation.
4. Approval for projects should be confirmed by the District Director of the schools where the project will be conducted.
5. Educators' programmes are not to be interrupted.
6. The Study is to be conducted from **01 May 2012 till 01 July 2012**
7. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
8. Should you wish to extend the period of your survey, please contact Dr A.T. Wyngaard at the contact numbers above quoting the reference number?
9. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
10. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
11. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
12. The Department receives a copy of the completed report/dissertation/thesis addressed to:

The Director: Research Services
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000

We wish you success in your research.

Kind regards.

Signed: Dr Audrey T Wyngaard

for: **HEAD: EDUCATION**

DATE: 24 April 2012

ADDENDUM C

EXAMPLE OF CORRESPONDENCE BETWEEN RESEARCHER AND SCHOOLS IN SAMPLE

Dear

RE: Research XXXXXXXXXX SCHOOL

My name is Hannelie Spies, and I am a registered Master's in Educational Psychology (MEd Psych) student at the University of Stellenbosch. I am conducting a research project towards obtaining this degree. My focus for this study is the *readiness for teachers to support students with Asperger's Syndrome in mainstream education*. Inclusive education has been mandated by the Department of Education, and consequently it has been expected from our schools and teachers to implement it in our classes. Research has been done about numerous aspects of Inclusive Education and in-service training has been given to prepare teachers for the inclusion of learners with a variety of disabilities. However, no research could be found that concentrate specifically on the *readiness of* teachers to support learners with *Asperger's Syndrome* in their classes. I am therefore inquiring whether learners with the diagnosis of Asperger's Syndrome have been or are enrolled at your school, and thus whether there are teachers on your staff who have had the experience of teaching such children. If that is the case, may I approach the staff members in asking whether they might be willing to participate in the study?

It will be important that the teacher/s who takes part in this research has experience of having a learner diagnosed with Asperger's Syndrome in his/her class or has had one in their class previously. Therefore, we could then look retrospectively at how prepared he/she was to support the learner. Participation in this research will be voluntary, and will entail, first of all, completing a questionnaire consisting of a few open questions where the participants are free to share their experiences in whichever way they want to. The data received from all the teachers involved in the research will be analysed and this phase will be followed up with further individual

interviews and maybe a focus group discussion where all the participants will get together and discuss the themes identified during the data analysis.

Participants can be reassured that all necessary actions to preserve confidentiality and their anonymity will be part of the process. All ethical guidelines from the profession of psychology and from the Stellenbosch University will be adhered to. Informed and voluntary consent will be sought from potential participants ahead of the research process. I shall appreciate it if you would consider this request in conjunction with the governing body and your staff, should Asperger's Syndrome be a diagnosis with which you have had to deal in your school.

Kind regards

Hannelie Spies

US 16485246

ADDENDUM D

**EXAMPLE OF THE REFLECTIVE QUESTIONNAIRE
FOR PARTICIPANTS**

Teacher's readiness to support children with Asperger's syndrome within mainstream schools.

Researcher: Hannelie Spies

Date:

Name and surname:

Gender:

Teaching experience:

Amount of years at current school:

Academic qualifications:

Subject area:

Exposure to learners who experience barriers to learning:

Exposure to learners diagnosed with Asperger's syndrome:

Pre-service training in inclusive education:

In-service training in inclusive education:

Please answer the following questions as completely as possible. I would like to gather information as accurately as possible about your knowledge around Asperger's syndrome as it stands **at the moment**, as well as regarding your experience as it is **at the moment**. It is thus not necessary to research the topic before answering the questions.

1. The following is a quote from a document stating the rationale for inclusion:
 "The condition of disability is recognized as inherent to society. The assumption is made that people with disabilities are an inherent part of society and not an anomaly on normalcy. Social diversity is understood as central to building just societies."

What are your feelings regarding this statement?

2. How do you understand the Inclusive Education Policies as stated in the South African Constitution, the South African Schools Act, White paper 6 and the SIAS document?

3. Please explain your understanding of Pervasive Developmental Disorder (PDD), Autism Spectrum Disorder (ASD) and Asperger's Syndrome.

4. How would you recognise a person with Asperger's Syndrome on the basis of:

- Personality characteristics?
- Behaviour manifestations?
- Emotional manifestations?

5. What are the needs of an individual with Asperger's syndrome in a mainstream school?
6. Which adaptations or accommodations will you have to make in your classroom to satisfy the above-mentioned needs?
7. Which adaptations are necessary in the school system in order to accommodate individuals with Asperger's syndrome?
8. Which adaptations are necessary in the community in order to accommodate individuals with Asperger's syndrome?
9. In which ways will the above-mentioned adaptations influence you daily tasks?
<p>10. How prepared are you to effect the above-mentioned adaptations on the following levels?</p> <ul style="list-style-type: none"> • Personally • School system • Physical and class environment
11. How prepared is the school system to effect the above-mentioned adaptations?
12. How prepared is the broader community to effect the above-mentioned adaptations?
13. In which ways did the following aspects play a role in your knowledge about Asperger's Syndrome?

13.1 Pre-service training?

13.2 In-service training

13.3 Informal training through attendance of workshops

13.4 Popular media (magazines, tv, newspapers etc.)

13.5 Internet sources

13.6 Other

I state that I have filled in the above information as accurately as possible, based on current knowledge.

Signed:

Date:

ADDENDUM E

INTERVIEW SCHEDULE FOR INDIVIDUAL- AND FOCUS-GROUP INTERVIEWS

INTERVIEW SCHEDULE FOR FOCUS GROUP INTERVIEWS, July 2012

1. MACRO-LEVEL INFLUENCES ON THE READINESS (CIRCULAR CASUALTY)

1.1. POLITICAL ISSUES

- Die oorsprong van inklusiewe onderwys (IO)?
- What are the roots of inclusive education?
- Die verband tussen die 1994 verkiesing en inklusiewe onderwys?
- What is the link between the 1994 election and IE?

1.2. CULTURAL VALUES

1.2.1. Notions of rights and social justice

- Verstaan van social justice/sosiale regte?
- What is your understanding of social justice?
- Verband met IO?
- How does that relate to IE?

1.2.2. Sociocultural understanding of disability

- Verstaan van 'n 'disability', leeruitdaging of 'barrier to learning'?
- What is your understanding of a disability/barrier to learning?
- Persoon met die leeruitdaging se reg of voorreg om in die gewone stroom geakkomodeer te word?
- Is it the person with the barrier's right or privilege to be included in general education?
- Watter voorwaardes moet daargestel word om 'n leerling met 'n gestremdheid of leeruitdaging in die gewone onderwysstroom te akkomodeer.
- What should the pre-requisites be to include a learner with BTL in your school?

2. SCHOOL SYSTEM INFLUENCES ON READINESS

2.1. DEPARTMENT OF EDUCATION

- Hoe het die Departement van Onderwys u voorberei vir IO? (opleiding, bekendstelling van beginsels, ens.)
- How did the DE prepare you for IE?
- Watter tipe ondersteuning verskaf die WKOD aan u as 'n leerling met 'n leeruitdaging in u klas geplaas word? (Besoek deur professionele persoon, inligting aangaande die persoon, ens).
- What kind of support does the WCED give to a new person with a barrier to learning when he/she enters your school?

2.2. SCHOOL ETHOS

- Hierdie skool se benadering ten opsigte van IO?
- What is this school's approach towards IE?

2.3. SCHOOL SUPPORT PRACTICES

- Wat is die proses in die skool wat gevolg word as 'n leerling met 'n leeruitdaging in u klas geplaas word. (koördineerder? Span? Collaboration? Een vd bestuur by vergaderings?
- What is the process this school follows when a new learner with a btl enters the school?
- Watter rol speel die prinsipaal in bogenoemde proses?
- What role does the principal plays in this process?
- Watter proses word gevolg om te besluit of 'n leerling in die skool toegelaat kan word of nie?
- What process does the school follow to decide whether a learner can come to the school?

2.4. RESOURCES

- Watse hulpbronne is beskikbaar in u skool om u te ondersteun?
- What resources are available in your school to support a learner with a BTL?
- Deelnemers noem dat tyd 'n probleem is ... vertel my meer daarvan.
- A theme that runs through the answers is "time" ... tell me more about it ...
- Deelnemers noem dat geld 'n probleem is ... vertel my meer daarvan

- A theme that runs through the answers is "money" ... tell me more about it ...

3. THE CLASSROOM SYSTEM

3.1. TEACHER

3.1.1. Acceptance of IE principle

- Jou persoonlike ervaring vd IO beginsel in die praktyk.
- What is your experience with IE?
- Beskryf vir my hoe gereed jy voel om IO uit te voer/beginsels toe te pas?
- Explain to me your readiness for EI.
- Dink julle dis prakties uitvoerbaar in julle skool?
- Do you think it is practical in your school?

3.1.2. Paradigm shift (fairness principle, social justice)

- Hoe voel u oor die stelling dat IO 'n hartsverandering is?
- How do feel about the notion that one needs to have a change of heart towards IE?
- 'n Tema wat deurgans voorgekom het in jul refleksies was die feit dat dit onregverdig is teenoor die ander "gewone" kinders in die klas as die onderwyser te veel aandag gee aan die leerling. Vertel my meer daarvan.
- A theme that I've seen is the fact that it is not fair toward the other children who don't have barriers if the teacher gives more attention to the ones with the BTL.

3.1.3. Ownership/responsibility

- Wie is verantwoordelik vir die insluitingsproses?
- Who is responsible for IE?
- Die onderwyser/onderwyseres se verantwoordelikheid in die IO proses?
- What is the responsibility of the teacher in the inclusion of a learner with a BTL?
- Wat is die rol van die WKOD?
- The role of the WCED?
- Rol van die sielkundige? Fasiliteerder? Voorligter?
- Role of the Psychologist?

3.1.4. Training

- Verduidelik vir my die opleidingsproses wat gevolg word in die skool of WKOD? Is dit vrywillig? Wanneer? Ens ...
- Training for IE ... can you explain how it happened?

3.1.5. Knowledge of inclusive education

- Watter rol speel die Onderwys Dept in die verkryging van kennis tov IO, spesifieke leeruitdagings, uitdagings van kinders in jou klas?
- What is the role of the ED in the obtaining of knowledge regarding EI, specific barriers, specific learners barriers in your class?

3.1.6. Knowledge of AS

3.1.6.1. Characteristics of AS

3.1.6.2. Adaptations to support learners with AS

- Wat is die 5 belangrikste aspekte wat jy in ag sal neem as 'n leerling met AS na jou klas kom.
- What are the 5 most important aspects that you need to consider when including a learner with IE in your class.
- Watse aanpassings/adaptations sal jy maak tov om aan te pas by die behoeftes van leerlinge met AS:
- What kind of adaptations will you make for a learner with AS in regard to the following:

3.1.6.2.1. *Assessment/Assessering*

3.1.6.2.2. *Instructional techniques/Onderrigtegnieke*

3.1.6.2.3. *Curriculum modification and instruction*

3.1.6.2.4. *Coordination of adult support/Collaboration*

ADDENDUM F

INFORMED CONSENT FORM AS PROVIDED TO RESEARCH PARTICIPANTS

STELLENBOSCH UNIVERSITY

CONSENT TO PARTICIPATE IN RESEARCH

Teachers' readiness to support children with Asperger's syndrome within mainstream schools

You are asked to participate in a research study conducted by Hannelie Spies, an MEdPsych student in the Department of Educational Psychology at Stellenbosch University. Information gathered in this research will contribute to a Master's thesis. You were selected as a possible participant in this study because as a teacher you have valuable information to share regarding the inclusion of a student/learner with Asperger's syndrome in your class within a mainstream school.

1. PURPOSE OF THE STUDY

The aim of the study is to explore the readiness of teachers in high schools in the Western Cape in South Africa, to support and successfully include children diagnosed with Asperger's syndrome in their classes within a mainstream school.

2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

1. You will be asked first of all to complete an open-ended **questionnaire** that will take approximately half an hour.
2. Thereafter, follow-up **individual interviews** will be conducted at your school according to emerging themes arising from the questionnaire you've completed. In the open-ended semi-structured interviews, the researcher will employ open-ended questions designed to gather more information. This will take about half an hour.

3. Data analysis will commence right from the start of the process. Information gathered from all the participant teachers from different schools in the area will be analysed and preliminary themes will be identified, which will then be used for a **focus group** discussion. Here the themes identified will be checked among the group of participants, and will be introduced, stimulating group discussions around them. This will take approximately one hour.

3. POTENTIAL RISKS AND DISCOMFORTS

Participants will participate freely and voluntarily and will be fully informed as to the purpose, methods, intended use of the research, and what their participation in the research would entail. As participant you are guaranteed anonymity - for the purpose of the study, the participant's names will be omitted and your privacy protected by means of pseudonyms in the final report. The ethical issues will be discussed with the participants and written consent will be given by each of them.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

It is anticipated that the findings of the study will enhance the development of meaningful support strategies and necessarily steps to prepare teachers for the inclusion of students with Asperger's syndrome in their classes in the mainstream schools.

5. PAYMENT FOR PARTICIPATION

Participation in this study is voluntary. No payment will be received for taking part in the study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of omitting your name and by using pseudonyms in the final report.

The information received from you will be kept safely at my home in a cabinet to which only I have access, and on my laptop computer. The computer is protected by a password.

The interviews are to be recorded on a digital dictaphone. Immediately after the interviews, the information will be downloaded onto my laptop. You have the right to review/edit the recordings. No one else has access to the recordings. The information downloaded on my laptop will be erased once my thesis has been completed.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact:

Ms Hannelie Spies	Postgraduate Student Department of Educational Psychology Stellenbosch University Tel# 072 6533 585
-------------------	--

Ms Mariechen Perold	Lecturer and researcher Department of Educational Psychology Tel# 021 808 2307
---------------------	--

Prof. R.L. Carolissen	Head of Department Department of Educational Psychology Stellenbosch University Tel# 021 808 2307
-----------------------	--

9. RIGHTS OF PARTICIPANT

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

If you have questions regarding your rights as a participant, contact Ms Marlana Fouché (mfouche@sun.ac.za) at the Unit for Research Development.

SIGNATURE OF PARTICIPANT OR LEGAL REPRESENTATIVE

The information above was described to me by Hannelie Spies in [Afrikaans/English/Xhosa/other] and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Name of Legal Representative (if applicable)

Signature of Subject/Participant or Legal Representative

Date: _____

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____[name of the subject/participant].
[He/she] was encouraged and given ample time to ask me any questions. This conversation was conducted in [Afrikaans/*English/*Xhosa/*Other].

Signature of Investigator

Date

ADDENDUM G

EXAMPLE OF DATA ANALYSIS

Please answer the following questions as completely as possible. I would like to gather information as accurately as possible about your knowledge around Asperger's syndrome as it stands **at the moment**, as well as regarding your experience as it is **at the moment**. It is thus not necessary to research the topic before answering the questions.

1. The following is a quote from a document stating the rationale for inclusion:

"The condition of disability is recognized as inherent to society. The assumption is made that people with disabilities are an inherent part of society and not an anomaly on normalcy. Social diversity is understood as central to building just societies."

What are your feelings regarding this statement?

1. Ek stem met dit saam in teorie, maar in praktyk is dit nie werklik so nie. Samelewing is ook te divers, die hoeveelheid moeite wat ingesit word om gestremdes te ondersteun en ontwikkel verskil van area tot area. Binne die sosiale sirkels word gestremdhede aanvaar maar nie altyd gevier of as belangrik gesien nie.
2. Persone met gestremdhede is deel van die breet samelewing en inherent tot die samelewing en is nie, nie "normaal" nie, maar is wel anders op een of ander manier – die definisie van gestremdheid impliseer per se dat daar iets anders is as met die gemiddelde persoon of meerderheid van mense.
3. It is true that in society we have people with disabilities and as a society we have to be accepting of those battling with disabilities. As a modern and just society we have to give them ample opportunity to function within a normal environment to the best of their abilities.
4. Ek voel dat dit waar is dat dit deel is van ons samelewing en dat ons ons bes moet doen om hulle dieselfde te hanteer as leerders sonder "disabilities". In die praktyk is dit nie egter so maklik nie.
5. Ek stem saam dat 'gestremdhede' tot 'n mate normaal is en dat mense met gestremdhede normaal kan funksioneer, indien die persoon met die 'gestremdheid' (fisies, leer of geestelik) die nodige bystand het om 'normaal' te kan funksioneer.
6. Aangesien daar al hoe meer kinders is wat gediagnoseer word met leerprobleme van allerlei aard word dit al hoe meer waar. 'n Mens kan tog nie al hierdie kinders uit hoofstroomonderwys haal nie, veral ook omdat hulle eendag in hoofstroomloopbane sal moet staan. Hulle moet leer om hul spesifieke probleme te hanteer so goed hulle kan, en die breet samelewing moet leer om hulle by te staan en te

~~AANVANKLIKE~~ TEMAS TED

- ① → 8em saam met filosofie van IE ✓ ①
- ② → In praktyk/sameling neg. siening ✓
- ③ → Normaliteit verwysings/anders/ bewussyn van norm/abr
- ④ → Ekstrinsieke vermagting vanuit makrosisteem
- ⑤ → kennis van beleidsdokke — voag ①
— glad nie ②
- ⑥ → kennis van teoretiese indeling van verstourings
hierdie twee kan ook opgedeel word
in PDD / AS / ASD
 - ① voag/mr
 - ② glad nie
 - ③ baie
 - ④ foutief
- ⑦ → kennis van AS persoonlikheid: ① voag
② glad nie
③ baie
④ foutief
Jy moet oordeel hier
- ens.
- ⑧ Charity discourse
- ⑨ Mense skeep "gestremdhede" ?
- ⑩ Voornabards vir incl. — severity
- ⑪ awareness
- ⑫ tyd | extra work.
- ⑬ verskoning (waar lê ons se plig by normal of nie-normaal)
 - ↑ rationalization of #2
- ⑭ ekstra hulp - facilitator
- ⑮ Ervaring van being less/diff by leerder met AS self
- ⑯ Gebrek aan training
- ⑰ Professionele support. ← specialized support
- ⑱ Geld issues

